

Attachment 104

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON**

FEDERAL TRADE COMMISSION,

Plaintiff,

v.

AMAZON.COM, INC., a corporation,

Defendant.

Case No. 2:23-cv-0932

EXPERT REPORT OF DONNA L. HOFFMAN, PH.D.

February 24, 2025

CONFIDENTIAL

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I. Qualifications

1. My name is Donna L. Hoffman. I am a Full Professor of Marketing at The George Washington University School of Business. I am the holder of the endowed chair, titled the Louis Rosenfeld Distinguished Scholar, at The George Washington University.
2. I hold a Ph.D. from the L.L. Thurstone Psychometric Laboratory of the University of North Carolina at Chapel Hill with a minor in marketing. My primary formal training is in psychometrics, a field of behavioral science focused on the quantification and measurement of human cognition and behavior and experimental design. In 2002, the University of North Carolina named me a Distinguished Graduate Alum in honor of their Centennial. Before joining The George Washington University, I was a faculty member at Columbia University, the University of Texas, Vanderbilt University, and the University of California, Riverside. I have also served as a visiting scholar at UCLA, Stanford, USC, UCSD, and Hong Kong University.
3. The principal focus of my research over the past two decades has been in the area of online consumer experience, including online consumer behavior, online customer experience, digital commerce and Internet marketing, social media, the social and policy implications of the commercialization of the Internet and, more recently, artificial intelligence.
4. I am the author of 89 papers, including articles published in leading academic journals such as *Science*, *Marketing Science*, *Management Science*, *Journal of Marketing Research*, *Journal of Marketing*, *Journal of Consumer Research*, and *Journal of Consumer Psychology*, among many others, and leading practitioner publications such as the *Harvard Business Review* and the *Sloan Management Review*, along with chapters in books. I am the co-editor of the book *Beyond the Basics: Research-Based Rules for Internet Retailing Advantage*. My publications also include working papers and technical reports as well as a number of articles I have published in the popular press, including *Wired*, *HotWired*, *MicroTimes*, and *Information Impact Magazine*.
5. Many of these papers have focused on the online consumer experience. For example, in my 1996 *Journal of Marketing* seminal paper,¹ I introduced a conceptual framework to study

¹ Hoffman, D. L. and T. P. Novak, (1996), "Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations," *Journal of Marketing*, 60, 3, 50-68.

consumer experience on the Internet, analyzed the role of navigation flows, and examined its marketing implications. In my 2003 *Journal of Consumer Psychology* paper,² I studied consumer behavior in online environments and how the consumer experience is influenced by important antecedents, including goals and motivations. In my 2009 *Journal of Interactive Marketing* paper,³ I analyzed the role of online environments in facilitating a consumer experience in which the consumer is completely engaged with their online interaction with the computer and how such experience impacts important marketing outcomes.

6. I am on or have previously served on the editorial boards of most of the top marketing journals in the world. Currently, I am an Associate Editor (AE) of the *Journal of Marketing* and the *Journal of Consumer Psychology*. I also recently completed an AE term at the *Journal of Consumer Research* and currently serve as a guest AE for the *Journal of Marketing Research*. In addition to these editorial duties, I serve on the Editorial Boards of the *Journal of Consumer Psychology*, *Journal of Consumer Research*, *Journal of Marketing*, and *Journal of Marketing Research*, among others. I have also served as an Academic Trustee of the Marketing Science Institute.

7. I was Editor of the first special issue of *Marketing Science* devoted to “Marketing on the Internet” and the Special Issue Editor, Marketing Section, for the “Electronic Commerce Metrics” issue of *Information Systems Research*. I was also the co-editor of a special issue of the *Journal of Interactive Marketing* on “Social Media” and a co-editor of a special issue of the *Journal of Marketing* on “New Technologies in Marketing.” I served as a Final Judge for *Inc. Magazine*’s competition of the best marketing websites.

8. According to Google Scholar, as of February 15, 2025, my research has been cited 41,528 times.⁴ Fifteen of my published articles have been cited over 500 times and 39 of my published articles have been cited at least 100 times. Two of my research articles are among the most cited articles in the journals in which they appear. My 1996 *Journal of Marketing* paper⁵ on

² Novak, T. P. et al. (2003), “The Influence of Goal-Directed and Experiential Activities on Online Flow Experiences,” *Journal of Consumer Psychology*, 13, 1–2, 3–16.

³ Hoffman, D. L. and T. P. Novak (2009), “Flow Online: Lessons Learned and Future Prospects,” *Journal of Interactive Marketing*, 23, 1, 23–34.

⁴ See “Donna Hoffman,” *Google Scholar*, <https://scholar.google.com/citations?user=FY9GUJgAAAAJ&hl=en&oi=ao>.

⁵ Hoffman, D. L. and T. P. Novak (1996), “Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations,” *Journal of Marketing*, 60, 3, 50–68.

consumer experience on the Internet is the most widely cited paper in that journal from 1995 to 2007 and the number one most cited paper in the entire marketing discipline between 1990 and 2002.⁶ My 2000 *Marketing Science* paper⁷ on customer experience in online environments is one of the “all-time most highly cited articles” and the top article in terms of “all-time citations per year” in *Marketing Science*,⁸ as well as the 14th most cited paper in the entire marketing discipline between 1990 and 2002.⁹

9. My research has been funded by the Alfred P. Sloan Foundation, the National Science Foundation, the Marketing Science Institute, Google/WPP, and the University of Pennsylvania Future of Advertising Center/Wharton Customer Analytics Initiative.

10. I am a recipient of several of the marketing field’s most prestigious research awards, including being named a *Society for Consumer Psychology Fellow*, the *Robert B. Clarke Educator of the Year Award* from Marketing EDGE (formerly the DMEF), the *Sheth Foundation/Journal of Marketing Award* for long-term contributions to the discipline of marketing, the *Stellner Distinguished Scholar Award* from the University of Illinois, the *William O’Dell/Journal of Marketing Research Award* for long-term research impact, and the *Robert D. Buzzell Marketing Science Institute Best Paper Award Honorable Mention*.

11. I have won several other awards in connection with my research. I was voted the top Internet Scientist by over 600 U.S. and European scientists and marketing managers in a survey conducted by the ProfNet Institute for Internet Marketing in Dortmund, Germany.

12. I co-founded and co-direct the Center for the Connected Consumer at The George Washington University School of Business, an initiative that aims to understand “how consumers interact with smart objects that are connected to the Internet.”¹⁰ Previously, as a professor at Vanderbilt University and the University of California, Riverside, I co-founded and co-directed for ten years the Sloan Center for Internet Retailing, an initiative that focuses on customer experience, with a pioneering virtual laboratory for research on the online customer experience.

⁶ Stremersch, S. et al. (2007), “The Quest for Citations: Drivers of Article Impact,” *Journal of Marketing*, 71, 3, 171–193 at p. 177.

⁷ Novak, T. P. et al. (2000), “Measuring the Customer Experience in Online Environments: A Structural Modeling Approach,” *Marketing Science*, 19, 1, 22–42.

⁸ Shugan, S. M. (2008), “Editorial: Introduction to the Special Classics Issue,” *Marketing Science*, 27, 1, 9–11.

⁹ Stremersch, S. et al. (2007), “The Quest for Citations: Drivers of Article Impact,” *Journal of Marketing*, 71, 3, 171–193.

¹⁰ “About the Center,” *GW Center for the Connected Consumer*, <https://postsocial.gwu.edu/about/>.

Previously, I also co-founded and co-directed the first academic center for electronic commerce in the United States, called eLab.¹¹ The *New York Times* called eLab “one of the premier research centers in the world for the study of electronic commerce” and the *Wall Street Journal* recognized the effort as the “electronic commerce pioneer among business schools.”¹²

13. I received the EDSF Excellence in Education Award for Innovation in Higher Education (sponsored by Xerox) for my work establishing the eLab virtual behavioral laboratory. The eLab has received a commendation from the Association to Advance Collegiate Schools of Business (AACSB) for “International Effective Practice.”

14. I co-created, co-launched, and directed the first formal MBA curricular concentration in the world for the study of electronic commerce at a business school while I was a professor at Vanderbilt University. I also taught the first MBA course on Internet marketing at a business school. I have created and taught courses in Internet Marketing Strategy, Digital Commerce Strategy, Managing the Customer Chain, AI and Marketing Strategy, and Marketing Strategy Analytics.

15. I have worked as an advisor to major corporations on the topics of online consumer experience and digital marketing strategy, including Procter & Gamble, Intel, Microsoft, FedEx.com, Land’s End/Sears, Walmart.com, and CBS Interactive, among many others. I have also served as a member of the Procter & Gamble Digital Advisory Board.

16. I have previously served as an expert witness in multiple matters and opined on issues relating to consumer experience in online environments. A complete list of my professional qualifications, publications, affiliations, and expert witness testimony are described in my curriculum vitae, which is attached as **Appendix A**.

¹¹ Vanderbilt University News Release, “Hoffman and Novak Named ‘Distinguished Graduate Alumni,’” June 6, 2003.

¹² “Hoffman Receives Clark Award,” *American Marketing Association*, August 1, 2011, <https://www.ama.org/listings/2011/08/01/hoffman-receives-clarke-award/>.

II. Background and Allegations

17. Amazon.com, Inc. is a technology company with business activities in retail and cloud computing, among other areas.¹³ Amazon Prime (also called “Prime”) is a paid membership service offered by Amazon that offers consumers access to same-day, one-day, or two-day delivery for products purchased through Amazon, as well as access to music, video, e-books, gaming, and photo storage.¹⁴ In 2021, Amazon Prime reached 200 million members globally.¹⁵

18. Plaintiff, the FTC, alleges that Amazon has knowingly used “manipulative” user-interface designs “known as ‘dark patterns’” in certain enrollment and cancellation flows (i.e., series of steps across webpages to accomplish a task)¹⁶ for Amazon Prime.¹⁷ In its Amended Complaint, the FTC alleges that Amazon uses manipulative user-interface designs in several desktop and mobile flows named Universal Prime Decision Page (“UPDP page”), Shipping Option Select Page (“SOSP”), Single Page Checkout (“SPC”) and True Single Page Checkout (“TrueSPC”), and Prime’s online cancellation flow that was in place between 2016 to around March 2023, that the Amended Complaint refers to as the “Iliad flow.”¹⁸ The FTC also alleges

¹³ Amazon.com, Inc., SEC Form 10-K for Period Ended December 31, 2022, Filed on February 3, 2023, <https://www.sec.gov/ix?doc=/Archives/edgar/data/1018724/000101872423000004/amzn-20221231.htm>.

¹⁴ “Amazon Prime,” *Amazon*, <https://www.amazon.com/amazonprime>.

¹⁵ “Amazon Prime Tops 200 Million Members, Jeff Bezos Say,” *Variety*, April 15, 2021, <https://variety.com/2021/digital/news/amazon-prime-200-million-jeff-bezos-1234952188>.

¹⁶ See, e.g., “User Journeys Vs. User Flows,” *Nielsen Norman Group*, April 16, 2023, <https://www.nngroup.com/articles/user-journeys-vs-user-flows> (“A user flow is a set of interactions that describe the typical or ideal set of steps needed to accomplish a common task performed with a product.”).

¹⁷ Amended Complaint (and Attachments), *Federal Trade Commission v. Amazon.com, Inc. et al.*, United States District Court Western District of Washington, Case No. 2:23-cv-0932-JHC, Docket No. 69 (September 20, 2023) (“Amended Complaint”), ¶ 2 (“Amazon … ha[s] knowingly duped millions of consumers into unknowingly enrolling in its Amazon Prime service (‘Nonconsensual Enrollees’ or ‘Nonconsensual Enrollment’). Specifically, Amazon used manipulative, coercive, or deceptive user-interface designs known as ‘dark patterns’ to trick consumers into enrolling in automatically-renewing Prime subscriptions.”), ¶ 7 (“Amazon also knowingly complicated the cancellation process for Prime subscribers who sought to end their membership”).

¹⁸ Amended Complaint, ¶ 37 (“On desktop devices, Amazon has several Prime upsells [sic]: an interstitial upsell [sic] called the Universal Prime Decision Page (‘UPDP’), and three non-interstitial upsells [sic] called the Shipping Option Select Page (‘SOSP’), Single Page Checkout (‘SPC’), and True Single Page Checkout (‘TrueSPC’). On mobile devices, Prime upsells [sic] mirror those on desktop, and include the UPDP, SOSP, and SPC.”), ¶ 7 (“… the primary purpose of the Prime cancellation process was not to enable subscribers to cancel, but rather to thwart them. Fittingly, Amazon named that process ‘Iliad,’ which refers to Homer’s epic about the long, arduous Trojan War. Amazon designed the Iliad cancellation process (‘Iliad Flow’) to be labyrinthine …”); Defendants Amazon.com, Inc., et al.’s Answer to Plaintiff Federal Trade Commission’s Amended Complaint, *Federal Trade Commission v. Amazon.com, Inc., et al.*, United States District Court Western District of Washington at Seattle, Case No. 2:23-cv-0932-JHC, Docket No. 171 (June 11, 2024) (“Defendants’ Answer to the Amended Complaint”).

that Amazon tricked consumers into unknowingly enrolling in Prime when consumers were planning to enroll in Prime Video instead.¹⁹

19. In its Amended Complaint, the FTC focuses on six types of alleged “dark patterns” in Amazon Prime’s enrollment and cancellation flows: “forced action,” “interface interference,” “obstruction,” “misdirection,” “sneaking,” and “confirmshaming.”²⁰

20. The FTC alleges that Amazon tricked consumers into enrolling in Prime without their consent by means of the “dark patterns” that it alleges were present in the four enrollment flows at issue.²¹ The FTC also alleges that Amazon complicated the cancellation process for Prime members who intended to end their membership.²²

21. The FTC also alleges that the cancellation process for Amazon Prime is more complex than the enrollment process because it requires consumers to navigate a cancellation process that is disproportionately longer than the enrollment process.²³

III. Assignment

22. I was asked by counsel for Amazon to:

- a. Analyze Amazon Prime’s enrollment (“UPDP,” “SOSP,” “SPC,” “TrueSPC,” and Prime Video enrollment flow) and cancellation flows discussed in the Amended Complaint and assess the FTC’s allegations about UI design elements at issue in those flows within the context of online consumer experience and behavior (including how consumers react to information and disclosures in online settings).

¹⁹ Amended Complaint, ¶¶ 109–111 (“Amazon’s webpage tricked consumers into signing up for Prime instead of Prime Video, which would be a lower-cost option. … Capitalizing on some consumers’ inability to appreciate the difference between ‘Prime’ and ‘Prime Video,’ the Prime Video enrollment process fails to clarify Amazon will enroll them in Prime rather than the less expensive Prime Video, on both desktop and mobile platforms. This causes some consumers to enroll in Prime, rather than Prime Video, unknowingly.”).

²⁰ Amended Complaint, ¶ 231.

²¹ Amended Complaint, ¶ 2 (“For years, Defendant Amazon.com, Inc. (‘Amazon’) and its leadership have knowingly duped millions of consumers into unknowingly enrolling in its Amazon Prime service (‘Nonconsensual Enrollees’ or ‘Nonconsensual Enrollment’). Specifically, Amazon used manipulative, coercive, or deceptive user-interface designs known as ‘dark patterns’ to trick consumers into enrolling in automatically-renewing Prime subscriptions.”).

²² Amended Complaint, ¶¶ 7–8 (“For years, Amazon also knowingly complicated the cancellation process for Prime subscribers who sought to end their membership. … the Iliad Flow’s complexity resulted from Amazon’s use of dark patterns—manipulative design elements that trick users into making decisions they would not otherwise have made.”).

²³ Amended Complaint, ¶ 128.

- b. Review current enrollment and cancellation flows of popular paid digital membership/subscription programs²⁴ to assess whether the UI design elements at issue in Amazon Prime's enrollment and cancellation flows (or those similar to them) are commonly used in online contexts and are likely to be familiar to online consumers.
- c. Review documents discussing Amazon's 2018 Project Lucent and 2020 UPDP clarity testing and assess any methodological limitations of those studies.

23. In forming my opinions and conclusions, I relied on my academic expertise and experience in marketing and consumer behavior. A full list of the documents I have considered is in **Appendix B**. I understand that expert and fact discovery is ongoing in this matter. I reserve the right to supplement or amend my opinions should new information become available.

24. I have been assisted in my work on this matter by staff of Cornerstone Research, who worked under my direction. I am being compensated at my current rate of \$950 per hour. I also receive compensation from Cornerstone Research based on its collected staff billings for its support of me in this matter. Neither my compensation in this matter nor my compensation from Cornerstone Research is in any way contingent or based on the content of my opinions or the outcome of this or any other matter.

IV. Summary of Opinions

25. Based on my professional expertise, experience, and knowledge, and my review of the information available to me in this case, I have developed the following opinions.

26. ***Opinion 1: The Analysis of the Online Consumer Experience Must Take into Consideration Consumers' Goals, Past Experiences, and Expectations.***

- a. Academic research on consumer behavior in online environments states that consumers do not experience and interact with websites in a vacuum, and what they learn from their previous experiences dictates how they perceive information in subsequent online experiences. This feedback loop is more prominent today than it ever was as most

²⁴ By "paid digital membership/subscription programs," I refer to paid programs that can be subscribed online with recurrent fees that give access to digital services (e.g., streaming), access to the content of a website or app, and/or discounts or benefits to purchases made through a website, an app, and/or in physical stores.

of the U.S. population is digitally connected. Academic and industry studies show that the majority of consumers are familiar with online membership or subscription services like Amazon Prime, suggesting familiarity with managing and cancelling such services. Similarly, the majority of consumers are familiar with the concept of free trial offers, and aware that if not canceled, at the end of the free trial period the trial would automatically convert into a paid membership/subscription. The FTC's failure to consider consumers' familiarity with these design elements or standard marketing practices severely undermines their conclusions about whether the alleged UI design elements at issue in Amazon Prime's enrollment and cancellation flows would "trick," "manipulate," or "mislead" consumers and influence their behaviors or "complicate" these processes in the alleged manners.

27. ***Opinion 2: "Dark Patterns" Definitions Are Vague and Lack Scholarly Consensus, and Their Subjective Interpretation Might Misidentify Commonly Used Legitimate Marketing Practices as "Dark Patterns."***

a. Throughout the Amended Complaint, the FTC alleges that the at-issue design elements are problematic because they constitute "dark patterns." I opine that there is no reliable definition of "dark patterns" which can be applied consistently across different UIs to assess the presence of "dark patterns." I find that the majority of "dark patterns" definitions are vague and primarily descriptive. Furthermore, to date, I am aware of no scientific framework that has been consistently applied to "dark patterns" to analyze their effects on consumers who encounter them. In those rare circumstances when there is a test to evaluate the potential effects of "dark patterns" on consumers, the design of the test fails to assess marketers' intent and consumers' cognitive state of mind, and therefore cannot reliably assess the effects of any "dark pattern." As such, applying these vague and subjective definitions can risk misidentifying commonly used legitimate marketing efforts as "dark patterns."

b. The FTC's allegations of Amazon's use of "dark patterns" challenge marketing practices that scholars recognize as common and legitimate. In alleging that Amazon's enrollment flows mislead or manipulate consumers, and its cancellation flow complicates the process for Prime members who intended to end their membership, the FTC makes no

distinction between the legitimate marketing practices of a business to influence consumers and intentional and deceptive efforts by a business to trick consumers into doing things against their wishes. It is important to remember that in marketing, a primary goal for a business is to identify and satisfy consumers' needs with its product or service offerings, and to attempt to persuade consumers to try, purchase, or use these offerings. Scholars who teach marketing, including myself and others in universities around the world, recognize that customer acquisition and retention activities, including the use of cross-selling (like Amazon cross-selling Amazon Prime to customers during the checkout process) are common, legitimate marketing practices.

c. Relatedly, the FTC does not consider whether and how (if at all) Amazon's efforts are different from standard marketing practices relating to customer acquisition and retention. Despite using language that repeatedly implies knowledge of what transpires inside the minds of consumers, the FTC's approach makes no direct connection to what consumers actually think, consider, or what motivates them to take certain actions. This omission is significant because, as discussed in Opinion 1, the abundant academic research states consumers do not experience and interact with websites in a vacuum, and what they learn from their previous experiences dictates how they perceive information in subsequent online experiences.

28. ***Opinion 3: The FTC's Claims Regarding the At-Issue UI Design Elements in Amazon Prime Enrollment and Cancellation Flows Are Unfounded.***

a. I analyzed each page of the Amazon Prime enrollment flows at issue, specifically: the UPDP page, the SOSP flow, the SPC flow, the TrueSPC flow, and the Prime Video flow. I found that the FTC's allegations regarding deceptive UI design elements show a lack of consideration for standard marketing practices and are inconsistent with the basic tenets of online consumer behavior. Specifically, the FTC's allegations fail to recognize that (i) it is a legitimate marketing practice for companies to use cross-selling, a marketing technique designed to offer existing customers the opportunity to purchase additional products or services that are related to the products they are currently purchasing, (ii) it is a well-studied and legitimate marketing practice for companies to use repetition in their communications, including repetition of the benefits of the product or

the services they offer, to improve persuasiveness of their communication, (iii) using consistent color and visual design schemes on a website creates an online experience consistent with consumers' prior knowledge and prior experience on the website, and (iv) presentation of the relevant information about Prime membership's autorenewal and monthly price, as well as information about the cancellation policy, is consistent with where consumers would typically expect to find that information, located where they accept or confirm their enrollment in the Prime free trial.

b. I also analyzed each page of the Amazon Prime desktop and mobile cancellation flows to assess the FTC's allegations regarding deceptive UI design elements in the cancellation flows. I find that the FTC's allegations show a lack of consideration for standard marketing practices and well-recognized principles of online consumer behavior. Specifically, the FTC's allegations fail to recognize that (i) reminding consumers of the benefits of the company's services is a legitimate marketing practice, (ii) consumers have different motivations for entering a cancellation process, and consumers who enter the cancellation process may not be completely set on cancelling or may change their minds when presented with relevant information, and (iii) Amazon's cancellation process follows the commonly used principles of progressive disclosure, which is a design technique that gradually allows consumers access to the information they need as they progress throughout the interface while minimizing the mental effort required. Regarding the mobile flows, I also find that the FTC's allegations regarding the mobile pages and flows fail to recognize that (i) many consumers are likely familiar with details being presented over multiple mobile screens or pages that require scrolling to navigate, (ii) Amazon mobile pages and flows follow the commonly used principles of progressive disclosure, and (iii) Amazon accommodates the smaller screen of mobile devices by reorienting the information vertically and by making material terms of the Prime offer visible without the need for scrolling.

c. Relatedly, to the extent the FTC's allegations imply that the different number of steps between Amazon Prime's enrollment and cancellation processes are problematic, I find that these allegations ignore that consumers have different goals for enrollment and cancellation and that therefore these two processes are aimed at addressing two different

goals. Each process requires responding to different customer motivations and information needs. From a consumer behavior perspective, there is no justification for the two processes to have the same length. The design of both Amazon Prime's enrollment and cancellation processes are consistent with the principles for user-interface design, giving consumers control, freedom, and measures to prevent and recover from errors, while employing progressive disclosure principles to present the right amount of information to consumers while minimizing the mental effort required to navigate the interface.

29. *Opinion 4: The At-Issue UI Design Elements Used by Amazon Are Commonly Used Online and Are Likely Familiar to Many Online Consumers.*

- a. To provide context for consumers' online experience in encountering the at-issue UI design elements in Amazon's Prime enrollment and cancellation flows, I performed two analyses.
- b. First, I examined the desktop enrollment and cancellation processes of 48 popular paid digital membership/subscription programs that were not owned by Amazon to assess whether UI design elements at-issue in this matter (or those similar to them) were present. I found that the majority of the UI design elements at-issue (or those similar to them) were commonly used in the desktop enrollment and cancellation processes of these popular paid digital membership/subscription programs. Specifically, of the 8 UI design elements at-issue during enrollment (or those similar to them), all 8 of them were present for more than half of the 48 paid digital membership/subscription programs I analyzed. Similarly, of the 7 UI design elements at-issue for cancellation (or those similar to them), 6 of them were present for more than half of the paid digital membership/subscription programs I analyzed.
- c. Second, I reviewed the top 30 most visited U.S. government websites and the FTC website to assess whether UI design elements at-issue in this matter (or those similar to them) that are applicable to government websites were present. I found that UI design elements at-issue (or those similar to them) that are applicable to government websites were commonly used by the government websites I analyzed.

d. The results of my two analyses collectively suggest that the UI design elements at-issue (or those similar to them) are commonly used online, and many consumers are likely to be familiar with them independent of their interactions with the Amazon website. As such, these types of prior online experiences would likely provide many consumers with additional context for interpreting and understanding the UI design elements at-issue as they go through a particular shopping experience on the Amazon website.

30. ***Opinion 5: Amazon’s Clarity Improvement Initiatives Relating to the UPDP Page in 2018–2020 Had Methodological Limitations that Limited Amazon’s Ability to Interpret the Results.***

a. I also examined allegations in the Amended Complaint regarding two sets of clarity improvement initiatives relating to the UPDP page that were undertaken in 2018 (named, “Project Lucent”) and in 2020. In both instances, Amazon attempted to address customer complaints and frustrations about the clarity of Prime’s UPDP page, and hence the clarity of the Prime sign-up process, with the goal to reduce unintended signups for Prime. Based on my review of relevant documents, I understand that despite Amazon’s concerted effort to modify the UPDP page in hopes of eliminating unintended signups and potential consumer confusion, results of these 2018 and 2020 clarity improvement initiatives were mixed and inconsistent with Amazon’s expectations regarding clarity improvements, as measured through proxy metrics defined by Amazon. Furthermore, these efforts in 2018 and 2020 had methodological limitations that restricted Amazon’s ability to ascertain whether changes made to the UPDP page presented during the checkout process made Prime disclosures clearer to consumers. In particular, Amazon (1) did not conduct systematic preliminary studies to validate the hypotheses regarding the drivers of consumer confusion, and (2) the metrics considered in the clarity tests captured only observable behaviors, and while companies commonly use these metrics for consumer-related analyses, these metrics do not measure consumers’ cognitive processes.

V. Overview of Amazon and its Amazon Prime Program

31. Amazon.com, Inc. (“Amazon”) is a technology company that offers a variety of products and services to consumers, sellers, developers, enterprises, content creators, and advertisers in retail and cloud computing, among others.²⁵

32. Amazon offers a membership/subscription service called Amazon Prime, which provides its members with a variety of benefits such as delivery benefits (e.g., access to free same-day, one-day, or two-day delivery for products purchased through Amazon), streaming and digital benefits (e.g., access to music, video, or gaming content), reading benefits (e.g., access to e-books, magazines, comics, or audiobooks), shopping benefits (e.g., exclusive discounts and deals on qualifying items at Whole Foods, Amazon Fresh, Amazon.com, Woot, and others for Prime members) and medical care and prescription benefits (e.g., access to savings and free two-day delivery on eligible prescriptions and to a One Medical care team), among others.²⁶

33. As of 2022, there were approximately 168 million Amazon Prime members in the United States.²⁷ The annual membership fee for Prime was \$139 (and the monthly membership was \$14.99) as of 2021.²⁸

34. Consumers can enroll in Amazon Prime through several means using a variety of devices, including (1) on Amazon Prime Homepage (www.amazon.com/prime; also known as “Slash Prime”),²⁹ (2) during the product purchase checkout process, and (3) Prime Video, among others.³⁰ Consumers who sign up for Prime see a membership confirmation screen and receive a welcome email confirming enrollment in a Prime membership.³¹

²⁵ Amazon.com, Inc., SEC Form 10-K for Period Ended December 31, 2022, Filed on February 3, 2022, <https://www.sec.gov/ix?doc=/Archives/edgar/data/1018724/000101872423000004/amzn-20221231.htm>.

²⁶ “Amazon Prime,” *Amazon*, <https://www.amazon.com/amazonprime>; “Prime Membership Benefits,” *Amazon*, <https://www.amazon.com/b/node=23945845011>.

²⁷ “Number of Amazon Prime Users in the United States from 2017 to 2022 with a Forecast for 2023 and 2024,” *Statista*, April 22, 2024, <https://www.statista.com/statistics/504687/number-of-amazon-prime-subscription-households-usa/>, accessed on October 29, 2024.

²⁸ “Amazon Prime 101: What To Know About Perks, Pricing And More,” *NBC News*, October 10, 2024, <https://www.nbcnews.com/select/shopping/amazon-prime-benefits-cost-ncna1269672>.

²⁹ Note that www.amazon.com/prime directs consumers to www.amazon.com/amazonprime.

³⁰ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, pp. 2–22.

³¹ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, pp. 2, 8; “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 49.

- a. For consumers who begin enrollment from the Amazon Prime Homepage, they see key terms of Prime membership on the page, such as the length of the free trial offer and the price of membership after the free trial period concludes. Once consumers indicate interest in the membership, they are shown key terms of Prime membership again before confirming enrollment.³²
- b. During the relevant period, consumers also could enroll in Prime during the checkout process by navigating through the following pages and flows: (1) the UPDP page (desktop and mobile); (2) the SOSP flow (desktop and mobile) (defunct as of October 2022); (3) the SPC flow (desktop and mobile); and (4) the TrueSPC flow (desktop only).³³ Consumers are shown key terms of the Prime membership before accepting the offer, including the length of the free trial, price of the Prime membership, and cancellation information.³⁴
- c. Consumers can also enroll in Prime membership through the Prime Video page or the detail page of a particular movie or TV show.³⁵ Similar to the previous two channels, consumers who are interested in enrolling in Prime are shown key terms of Prime, including length of free trial, price of membership, and cancellation information.³⁶

35. Consumers would get the full membership fee refunded if they “cancel within 3 business days of signing up for or converting from a free trial to a paid membership,” with a potential charge of the value of Prime benefits used by the consumer during these 3 days.³⁷ Amazon still would refund consumers a full membership fee if the account “did not make any eligible purchases or take advantage of Prime benefits since [its] latest Prime membership charge.”³⁸

³² FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, pp. 3–8.

³³ Amended Complaint, ¶ 37.

³⁴ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, pp. 11–12, 15, 18–19; Defendants Amazon.com, Inc., et al.’s Second Supplemental Responses and Objections to Plaintiff Federal Trade Commission’s First Set of Interrogatories, *Federal Trade Commission, v. Amazon.com, Inc., et al.*, United States District Court Western District of Washington at Seattle, Case No. 2:23-cv-0932-JHC (May 3, 2024) (“Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories”), pp. 8–19, 21–30.

³⁵ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 20.

³⁶ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 21.

³⁷ “Amazon Prime Terms & Conditions,” *Amazon*, <https://www.amazon.com/gp/help/customer/display.html?nodeId=G2B9L3YR7LR8J4XP>.

³⁸ “Amazon Prime Terms & Conditions,” *Amazon*, <https://www.amazon.com/gp/help/customer/display.html?nodeId=G2B9L3YR7LR8J4XP>.

36. There are numerous ways to cancel a Prime membership. Prime members can cancel their memberships using either desktop computers or mobile devices through a self-guided cancellation flow that is available through multiple ingress options. Some of the ways to find the ingress to the online cancellation flows are described below.

- a. Prime members can cancel their memberships by visiting the Amazon landing page, hovering over the “Account & Lists” dropdown menu on the top right, and taking any of the following three paths:
 - i. Navigate and click on “Prime Membership,” then click on “Manage Membership,” followed by “Update, cancel and more,” and then click on “End membership.”³⁹
 - ii. Navigate and click on “Account,” then “Prime,” followed by “Update, cancel and more,” and then click on “End membership.”⁴⁰
 - iii. Navigate and click on “Memberships & Subscriptions,” followed by “Prime Membership Settings,” then click on “Update, cancel and more,” and then click on “End membership.”⁴¹
- b. Consumers can cancel their Prime memberships by clicking on the “Account & Lists” button on the Amazon landing page (rather than navigating to the dropdown menu by hovering over that button), then clicking on “Prime,” followed by “Update, cancel and more,” and then clicking on “End membership,” which would bring consumers to the cancellation flow.⁴²
- c. Consumers can cancel their Prime memberships by clicking on the “All” with three bars on the top left of the Amazon landing page, then clicking on “Your Account,” then “Prime,” followed by “Update, cancel and more,” and then clicking on “End membership,” which would bring consumers to the cancellation flow.⁴³

³⁹ See **Appendix C.1**. See also “Amazon Redefines How Customers Manage Prime,” January 2021, AMZN-PRM-FTC-000867061-81 at 62. According to a Digital Trends article, this process was relevant in May 2020 as well and had the term ‘Your Prime Membership’ instead of ‘Prime Membership.’ See “How to Cancel Amazon Prime,” *Digital Trends*, April 26, 2022, <https://www.digitaltrends.com/web/how-to-cancel-amazon-prime/>.

⁴⁰ See **Appendix C.2**.

⁴¹ See **Appendix C.3**.

⁴² See **Appendix C.4**.

⁴³ See **Appendix C.5**.

- d. Consumers can cancel their Prime memberships by clicking on the “All” with three bars on the top left of the Amazon landing page, then clicking on “Hello, [name],” then “Prime,” followed by “Update, cancel and more,” and then clicking on “End membership,” which would bring consumers to the cancellation flow.⁴⁴
- e. Consumers can also access the cancellation flow from the Amazon landing page by clicking the “Help” link located toward the bottom of the page. Consumers can then click on “End Your Amazon Prime Membership.” Clicking on this link would lead to a “Help & Customer Service” page for “End Your Amazon Prime Membership.” Clicking the button for “End Your Prime Membership” on this page would bring consumers to the cancellation flow.⁴⁵
- f. Prime members can also visit Amazon Prime Homepage, click on “Manage my Membership” located at the top of the page. Consumers can then click on “Update, cancel and more,” and then click on “End Membership,” which would bring consumers to the cancellation flow.⁴⁶
- g. Prime members can enter the cancellation flow by searching “cancel membership” in the search bar of the Amazon landing page.⁴⁷ The search result page includes a link for “End Your Amazon Prime Membership.” Clicking on this link would lead to a “Help & Customer Service” page for “End Your Amazon Prime Membership.”⁴⁸ Clicking the button for “End Your Prime Membership” on this page would bring consumers to the cancellation flow.
- h. Consumers can also search for “cancel prime” in the search bar on the Amazon landing page, then click on “Manage membership,” followed by “Update, cancel and more,” and then click “End membership,” which would bring consumers to the cancellation flow.⁴⁹

⁴⁴ See Appendix C.6.

⁴⁵ See Appendix C.7.

⁴⁶ See Appendix C.8. See also “Pause Membership,” August 4, 2022, AMZN_00045965.

⁴⁷ Search capability can be utilized on multiple pages when a consumer is browsing on Amazon.com.

⁴⁸ “Cancel Membership Page,” February 2023, FTCAMZN_0024133–39 at 33.

⁴⁹ “Cancel Prime,” May 18, 2022, AMZN_00045160.

- i. Consumers can cancel their Prime memberships by conducting a query on an outside search engine (e.g., search “cancel prime” using Google), and clicking on the “Cancel Your Amazon Prime Membership” search result, which would bring them to an “End Your Amazon Prime Membership” page. Clicking the button for “End Your Prime Membership” on this page would bring consumers to the cancellation flow.⁵⁰
- j. Consumers can also cancel their Prime memberships using mobile devices. Consumers can go through a mobile equivalent of the cancelling process discussed above by visiting the Amazon landing page on their device or searching membership cancellation using the search bar.⁵¹
- k. Prime members can also cancel their Prime memberships through the Amazon mobile app by tapping on the profile icon at the bottom, then tapping on “Your Account,” followed by “Memberships and subscriptions.” This would lead to a screen with “Prime Membership Settings.” Consumers can tap on that, followed by “Manage membership,” then tap on “Update, cancel and more,” and then click on “End membership,” which would bring consumers to the mobile cancellation flow.⁵²

37. Consumers can also cancel their Prime memberships by contacting Amazon customer service, and have four options through which to do so: (1) using Amazon’s customer service help page; (2) calling Amazon’s customer service phone number, 1-888-280-4331, which is live 24 hours a day, seven days a week; (3) emailing customer service at cs-reply@amazon.com; and (4) using Amazon’s live chat.⁵³

⁵⁰ See **Appendix C.9**.

⁵¹ See Section VIII.E.2.

⁵² “How to Cancel Your Amazon Prime Free Trial to Avoid Getting Charged,” *Business Insider*, July 20, 2022, <https://www.businessinsider.com/guides/tech/how-to-cancel-amazon-prime-free-trial>. An article by Yahoo Finance from October 2020 notes similar cancellation steps using the Amazon mobile app. See “How to Cancel Your Amazon Prime Account,” *Yahoo Finance*, October 9, 2020, <https://finance.yahoo.com/news/how-to-cancel-amazon-prime-201436150.html>.

⁵³ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 30; “4 Ways To Contact Amazon Customer Service,” *Business Insider*, July 12, 2024, <https://www.businessinsider.com/guides/tech/how-to-contact-amazon-customer-service-phone-email-chat>; “Trying to Speak to a Human? Here’s How to Contact Amazon Customer Service or a Seller,” *USA Today*, September 14, 2022, <https://www.usatoday.com/story/money/retail/2022/09/14/how-to-contact-amazon-account-inquiries/7867529001/>.

VI. The Analysis of the Online Consumer Experience Must Take into Consideration Consumers' Goals, Past Experiences, and Expectations

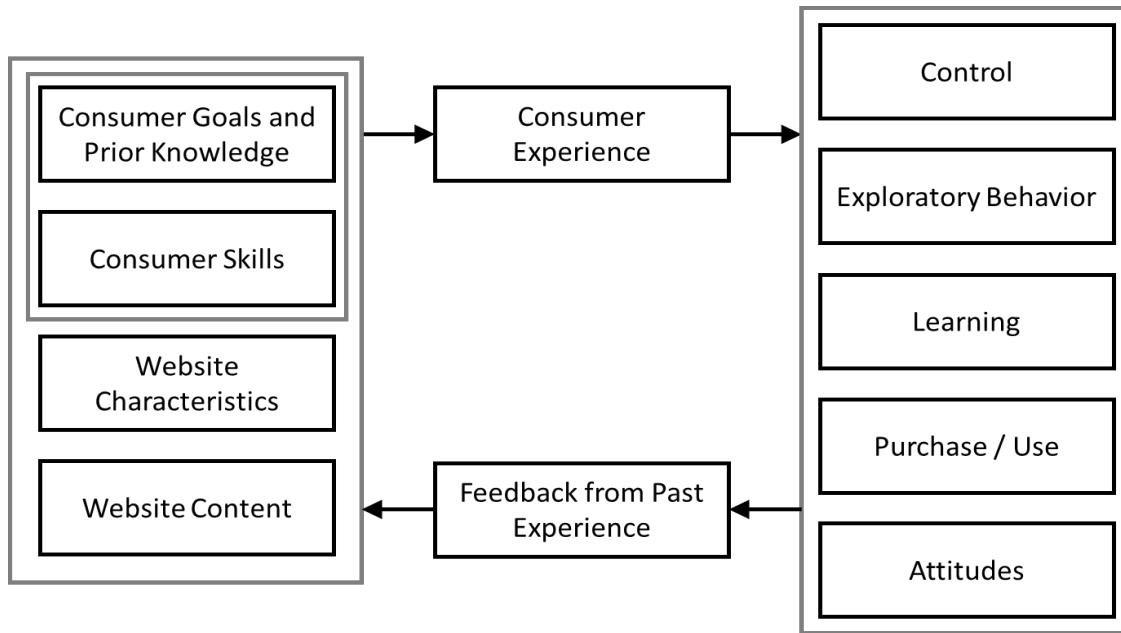
A. Consumers Do Not Experience and Interact with Websites in a Vacuum

38. The FTC alleges that Amazon has used “manipulative user-interface designs known as ‘dark patterns’” that influenced consumers’ behavior and experience on Amazon’s platform.⁵⁴ However, in order to assess what a consumer may experience on a user-interface, it is necessary to take into account an online consumer’s goals, past experiences, and expectations, which the FTC does not consider in its Amended Complaint.

39. Academic literature on consumer behavior in online environments offers a reliable framework to assess consumers’ expectations, perceptions, and interactions with the user-interface of these websites. In fact, the academic literature recognizes that consumers do not experience and interact with websites in a vacuum. Rather, consumers’ experience is dynamic and can be influenced by factors such as consumers’ goals for landing on that particular page on that site, their ability to successfully navigate through the pages on the site, as well as any relevant prior knowledge they possess about the site, the offerings on the site, and their expectations about the site and its offerings, even before they begin their navigation through the website. Therefore, all these factors must be taken into consideration in order to perform a proper assessment of consumer online behavior and experience. Exhibit 1 shows a highly simplified model of the online consumer experience, adapted from Hoffman and Novak (1996) and Hoffman and Novak (2009).⁵⁵

⁵⁴ Amended Complaint, ¶ 2 (“Amazon … ha[s] knowingly duped millions of consumers into unknowingly enrolling in its Amazon Prime service (‘Nonconsensual Enrollees’ or ‘Nonconsensual Enrollment’). Specifically, Amazon used manipulative, coercive, or deceptive user-interface designs known as ‘dark patterns’ to trick consumers into enrolling in automatically-renewing Prime subscriptions.”).

⁵⁵ Hoffman, D. L. and T. P. Novak (1996), “Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations,” *Journal of Marketing*, 60, 3, 50–68 at p. 59; Hoffman, D. L. and T. P. Novak (2009), “Flow Online: Lessons Learned and Future Prospects,” *Journal of Interactive Marketing*, 23, 1, 23–34 at p. 25. See also Agarwal, R. and E. Karahanna (2000), “Time Flies When You’re Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage,” *MIS Quarterly*, 665–694 at p. 674. Note that Hoffman and Novak (1996) originally referred to this process as “network navigation” to identify navigation through an online network. However, as online shopping became more widely adopted, the process began to be referred to more simply as “navigation.”

Exhibit 1 Stylized Model of Consumer Experience in Online Navigation


Source: Adapted from Figure 6 in Hoffman and Novak (1996) and Figure 1 in Hoffman and Novak (2009).

Note: The left box contains elements that contribute to the current online experiences. The feedback arrow indicates that past experiences contribute to current experiences. The right box contains elements that are affected by the current experiences.

40. Several antecedent components of this experience, shown on the left, shape consumers' online experiences. These antecedent components include not only the characteristics of the webpages consumers "consume" during their site navigations, but also the consumers' goals for that particular navigational experience, their competencies to perform the navigation, and any prior knowledge and expectations they have about the site. Shown on the right, consumers' online experiences can lead to multiple possible outcomes, including whether consumers choose a particular call-to-action such as a purchase. Experience outcomes also include consumers experiencing increased "control" of their own online journey, consumers engaging in "exploratory behavior" by browsing online longer, which leads to the further exploration of a product both on the current website and on different websites, and "learning," which results in consumers acquiring and retaining information about a product from marketing communications that was gleaned during the interaction with the website.

41. To properly assess the FTC’s allegations regarding Amazon’s at-issue enrollment and cancellation flows, it is therefore crucial to evaluate consumers’ experiences navigating these flows taking into account their learnings from past experiences, their expectations, and their goals.

B. Today’s Consumers Are Digitally Connected and Likely to Be Familiar With Navigating Free Trial Offers Online

42. Online experiences, both on a particular site and on the internet in general, will necessarily influence customers’ current and future experiences. And this feedback loop is more prominent today than it was ever before. As of 2020, there were approximately 307 million internet users in the U.S., meaning the vast majority of the population (92%) has been “digitally connected.”⁵⁶ Among users who shop online, the most popular online shopping categories encompass electronics, fashion, toys and hobbies.⁵⁷ According to another industry source, in 2023, 57% of U.S. consumers shopped online once a week or more, and only 6% reported they had never shopped online.⁵⁸ Further, according to a 2022 Pew Research Center study, 76% of U.S. consumers used smartphones to purchase items online while 32% do so at least on a weekly basis.⁵⁹ Many online shoppers subscribe to Amazon Prime, according to public sources.⁶⁰

43. Today’s consumers encounter several recurring navigational features across sites, adding to their baseline expectations about what to expect during their online experience. For example, buy buttons and virtual shopping carts are operational examples of navigational elements that

⁵⁶ “Digital 2022 Global OverviewReport,” *WeAreSocial*, <https://wearesocial.com/us/blog/2022/02/digital-2022-in-the-us> (“There are now 307 million internet users in the US, meaning 92% of the population is digitally connected.”).

⁵⁷ “eCommerce United States: Users,” *Statista*, <https://www.statista.com/outlook/dmo/ecommerce/united-states#users>; “Revenue of the e-Commerce Market in the United States 2022, by Segment,” *Statista*, August 27, 2024, <https://www.statista.com/forecasts/1266391/ecommerce-revenue-us-segment?locale=en>, accessed on October 29, 2024.

⁵⁸ In fact, 11% of consumers shop more than once a day, 10% shop once a day, 11% shop 4-6 times a week, 13% shop 2-3 times a week, and 12% shop once a week. Besides the 6% who have never shopped online, 16% shop 2-3 times a month, and 21% shop once a month or less. See “Consumer Trends Report Q3 2023,” *Jungle Scout*, 2023, p. 18.

⁵⁹ “For Shopping, Phones Are Common and Influencers Have Become a Factor – Especially for Young Adults,” *Pew Research Center*, November 21, 2022, <https://www.pewresearch.org/short-reads/2022/11/21/for-shopping-phones-are-common-and-influencers-have-become-a-factor-especially-for-young-adults/>.

⁶⁰ “Number of Amazon Prime Users in the United States from 2017 to 2022 with a Forecast for 2023 and 2024,” *Statista*, April 22, 2024, <https://www.statista.com/statistics/504687/number-of-amazon-prime-subscription-households-usa/>, accessed on October 29, 2024.

consumers have come to expect during the online shopping experience. Once a consumer finds a product they wish to purchase, they click a buy button to put it in a virtual shopping cart. Some of these commonly used elements online arise from well-known effective web design principles (for example, the use of headlines and bullet points),⁶¹ while others arise from practices that emerge over time and become “baked in” (for example, the use of common labels for primary and secondary action buttons).⁶² As consumers engage in repeated interactions online, these features become increasingly familiar and facilitate ease of navigation on new websites. For example, websites typically use colors, underlining, and buttons to indicate the links that are clickable and to distinguish them from static text.⁶³

44. Because free trials are a commonly used feature on websites and online services,⁶⁴ many, if not the majority, of consumers are familiar with free trials offered by online businesses when enrolling in paid digital subscription services. According to a survey of U.S. adults conducted by Prof. Ronald T. Wilcox in August 2024 (“Free Trials Survey”), 92.5% of respondents reported that at the time they participated in the survey, they were paying for at least one membership or

⁶¹ See “7 Tips for Presenting Bulleted Lists in Digital Content,” *Nielsen Norman Group*, April 9, 2017, <https://www.nngroup.com/articles/presenting-bulleted-lists/>; “Microcontent: A Few Small Words Have a Mega Impact on Business,” *Nielsen Norman Group*, January 29, 2017, <https://www.nngroup.com/articles/microcontent-how-to-write-headlines-page-titles-and-subject-lines/>.

⁶² “Maintain Consistency and Adhere to Standards (Usability Heuristic #4),” *Nielsen Norman Group*, January 10, 2021, <https://www.nngroup.com/articles/consistency-and-standards/> (“The fourth of Jakob Nielsen’s ten heuristics — consistency and standards — is key to creating applications that make sense for users. Think about the websites and applications you use: they all rely on well-established conventions. Blue underlined text is clickable, the shopping-cart icon shows the items you plan to purchase, the site logo is in the top left corner, a magnifier-glass icon stands for search — these are all examples of conventions that are used all the time in digital products and that make users’ lives easier.”).

⁶³ Moran, K. and F. Liu (2018), *How People Read Online: The Eyetracking Evidence*, 2nd ed., Fremont, CA: Nielsen Norman Group (“Moran and Liu (2018)”), p. 313 (“The visual design of a site will impact how its links look, but generally, we recommend at the very least making links a color that is quite different from the body text. Ideally, make the links blue, bold, and underlined (juxtaposed with black or very dark gray body text.) Whatever the presentation, the link should look clickable, be differentiated from body text, and be implemented consistently across the entire site.”), pp. 351–353 (“One participant was reading about the Sonos One speaker on Amazon. He saw a three-star review titled, *There are bugs, but it’s getting there*. The review was quite long, so Amazon only exposed the first three paragraphs. The participant started scanning the review and was interested, so he clicked *Read more* to expose the rest of the review...Amazon only exposed a few paragraphs of a long a review. If the participant wasn’t interested in it, he could easily scan to the next one. But he was interested, so he clicked the *Read More* link...After expanding, he scanned the full review.”); “A Link Is A Promise,” *Nielsen Norman Group*, December 14, 2014, <https://www.nngroup.com/articles/link-promise/> (“The best links are salient and descriptive. People should be able to read an expressive link or button term, determine the strength of the information scent, decide if they want to click the link, click it, wait until the next page loads, scan the page when it does, and immediately confirm that they are in the right place. In many cases, websites confirm the user’s assumptions and the person confidently continues scanning or reading.”).

⁶⁴ As discussed in Section IX, I reviewed 48 popular paid digital membership/subscription programs and found 48% of programs offer free trials that automatically renew and charge a payment method on file if not cancelled before the end of the trial period. *See Exhibit 54.*

subscription from a list of ten popular categories of memberships or subscription services that included online services. Further 58% of respondents reported that they signed up for at least one free trial of a membership or subscription in the prior 12 months.⁶⁵ In addition, according to an industry study, 84% of Americans have signed up for at least one free trial on a paid digital subscription service, including 49% who signed up for a free trial of membership or subscription programs relating to retail services.⁶⁶ Furthermore, the majority of consumers are also familiar with cancelling a paid digital subscription before the free trial ends. According to the same study, 58% of the respondents reported engaging in “trial hopping,” i.e., signing up for the same free trial offer multiple times using different email addresses to extend their unpaid access to the offer’s benefits.⁶⁷ These findings suggest that consumers are generally familiar, if not savvy, with the navigational processes for free trial enrollment and cancellation.

45. Eye tracking researchers use a technique that records eye movements to investigate how consumers process information during online navigation experiences. Research on eye tracking shows that a typical consumer relies on their prior experiences to form expectations about webpage elements and then applies these expectations from prior experiences as they navigate online. For example, online consumers typically look in areas of the screen where they expect to find the relevant element and information because they have found that element and information in a similar location on webpages they had visited in the past.⁶⁸ In addition, a consumer may look first to the top right of a screen to find items such as login, search, and account information

⁶⁵ Expert Report of Ronald T. Wilcox, February 24, 2025 (“Wilcox Opening Report”). For each of ten categories of popular membership or subscription services (e.g., streaming, retail, and music), respondents were asked whether, at the time, they were paying for a service within that category. Respondents were subsequently asked how many free trials they had signed up for in the prior 12 months across any type of membership or subscription service, not restricting to the ten categories in the prior question. See Wilcox Opening Report.

⁶⁶ “Survey: How Many Americans Are ‘Free Trial Hopping?’” *Frontier*, July 30, 2024, <https://go.frontier.com/media-center/trial-hopping-survey> (“How many times have you signed up for a free trial with your email? 44% [often], 32% [sometimes], 8% [rarely, only if I really need to use the product] ... 71% of respondents signed up for a free trial for streaming services, making this category the most popular, followed by retail at 49%, food services at 47%, and software trials at 29%.”).

⁶⁷ “Survey: How many Americans are ‘free trial hopping?’” *Frontier*, July 30, 2024, <https://go.frontier.com/media-center/trial-hopping-survey> (“How often do you create different email addresses to sign up for multiple free trials? 42% [Never], 32% [Sometimes], 26% [Constantly].”), (“... you can sign up for another free trial using a different email address, and then another, and another. This is known as ‘trial hopping,’ and it’s a method some people use to continue enjoying the benefits of a paid subscription service without having to pay for it. ... we surveyed 1,000 people (between the ages of 16-54+) using Pollfish to learn about their trial hopping habits ... 71% of respondents signed up for a free trial for streaming services, making this category the most popular, followed by retail at 49%, food services at 47%, and software trials at 29%.”).

⁶⁸ Moran and Liu (2018), p. 28 (“Users look in areas where they expect to find certain elements or information, based on previous experiences. They direct their attention to elements that stand out from the rest of page.”).

because that is where that information is typically found.⁶⁹ Further, eye tracking research has revealed a series of commonalities about how consumers collect information, including where they focus their attention and how quickly they assess the information on the screen before engaging in a slower evaluation process.⁷⁰

46. The emergence of these commonalities in the way a typical online consumer navigates websites has given rise to effective design principles that are now commonly used by website designers who wish to provide online experiences aligned with consumers' expectations and likely behaviors. When navigating online, today's consumers expect to receive information not only by reading the textual elements on a page, but also through the colors, call-to-action features, and positions of the visual elements on the screen.⁷¹

47. These findings suggest that online interfaces that disregard or ignore convention by presenting unexpected or unusual navigational patterns could require consumers to expend more effort or impose more cognitive load as they interact with the website. In the user experience field, cognitive load can be defined as the amount of mental resources required by a user to navigate a website; thus, reducing a user's cognitive load allows companies to improve the user experience.⁷² A website that requires a high cognitive load of its users might result in confusion

⁶⁹ "Utility Navigation: What It Is and How to Design It," *Nielsen Norman Group*, October 4, 2015, <https://www.nngroup.com/articles/utility-navigation/> ("Group utilities where people expect them: either in the top-right corner or next to the content they affect.").

⁷⁰ Moran and Liu (2018), p. 28 ("In sometimes less than a second, a user can complete an initial assessment of a page, estimating the potential value they'll glean from the information on the page.").

⁷¹ Moran and Liu (2018), p. 288 ("Help people find the subheadings they want to scan by making them stand out from the rest of the text on the page. This can be accomplished through a combination of visual treatments. Designers often use ... [l]arger text, [b]olded font, [d]ifferent color, [d]ifferent typeface, [a] border."). *See also* "What is a Call-to-Action (CTA) & Why's it Important," *Blend Commerce*, October 23, 2024, <https://blendcommerce.com/blogs/shopify/the-importance-of-clear-call-to-actions-in-design> ("Size, colour and button text are all very important aspects of any CTA but where you choose to place the button can increase the chances for it to be noticed more. Understanding the user journey and how your user interacts with your website will help you identify where you should place your buttons. For example, when you are designing a page you need to make sure that there is a CTA above the average fold once the user lands on that page. After the user has then scrolled down the page and read the information there should be a clear CTA for the user to sign up to a newsletter. In Between the header and footer you can also have some CTAs within the content blocks."). *See also* "Call for Attention. UI Design Tips on CTA Buttons," *Medium*, February 23, 2018, <https://uxplanet.org/call-for-attention-ui-design-tips-on-cta-buttons-5239413aded2>.

⁷² "Minimize Cognitive Load to Maximize Usability," *Nielsen Norman Group*, December 22, 2013, <https://www.nngroup.com/articles/minimize-cognitive-load/> ("In the field of user experience, we use the following definition: the cognitive load imposed by a user interface is the amount of mental resources that is required to operate the system...Designers should, however, strive to eliminate, or at least minimize, extraneous cognitive load: processing that takes up mental resources, but doesn't actually help users understand the content... Many of our top usability guidelines – from chunking content to optimizing response times – are aimed at minimizing cognitive load.").

or frustration, leading to users who abandon the navigation without completing the task. By contrast, a website that meets users' expectations for navigation would be more likely to produce positive experiences.⁷³ User experience designers recommend using best practices to minimize cognitive load, including to “[a]void visual clutter” and “[b]uild on existing mental models[.]”⁷⁴

48. Thus, the FTC’s failure to consider consumers’ familiarity with design elements or standard marketing practices severely undermines their conclusions about whether the alleged UI design elements at issue in Amazon Prime’s enrollment and cancellation flows would “trick,” “manipulate,” or “mislead” consumers and influence their behaviors or “complicate” these processes in the alleged manners.

49. Next, I discuss the concept of “dark patterns” in the academic literature and government sources and analyze the FTC’s allegations regarding alleged “dark patterns” in Amazon’s enrollment and cancellation flows using the principles discussed above regarding consumers’ expectations as to their online experiences. I discuss how the UI design elements that the FTC alleges are problematic might also be considered as standard marketing practices and would likely inform a consumer’s expectations when navigating the website. This discussion provides additional context for interpreting and understanding the UI design elements at-issue as consumers navigate through a particular shopping experience on the Amazon website.

VII. “Dark Patterns” Definitions Are Vague and Lack Scholarly Consensus, and Their Subjective Interpretation Might Misidentify Commonly Used Legitimate Marketing Practices as “Dark Patterns”

50. The term “dark patterns” has become a catch-all phrase to generally describe design practices that can “trick or manipulate users into making choices they would not otherwise have

⁷³ “Satisficing: Quickly Meet Users’ Main Needs,” *Nielsen Norman Group*, October 14, 2024, <https://www.nngroup.com/articles/satisficing/> (“If you do want users to engage more deeply with your site, there are two strategies: Lower interaction cost: Make each step easier, and users will walk further. Most traditional usability guidelines aim at this strategy. Higher benefits: Ensure that users can quickly get some pretty good information. Recognize that users will be satisficing and boost their outcome.”); Hoffman, D. L. and T. P. Novak (1996), “Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations,” *Journal of Marketing*, 60, 3, 50–68 at p. 60 (“Primary antecedents of flow. Two primary antecedent conditions are necessary for the flow state to be experienced: (1) skills and challenges must be perceived as congruent and above a critical threshold and (2) focused attention must be present. Skills are defined as the consumer’s capacities for action, and challenges as the opportunities for action available to the consumer in a CME.”).

⁷⁴ “Minimize Cognitive Load to Maximize Usability,” *Nielsen Norman Group*, December 22, 2013, <https://www.nngroup.com/articles/minimize-cognitive-load/>.

made and that may cause harm.”⁷⁵ Notably, the concept of “dark patterns” is based on a nebulous and subjective construct lacking in reliability and validity. To date, the academic literature that discusses “dark patterns” remains devoid of rigorous scientific approaches; instead, it is driven by vague, primarily descriptive definitions that are not supported by testing, replicable or otherwise.

51. The impact of this void in the literature is profound: without a rigorous scientific approach that is replicable by other researchers, marketing practices that constitute legitimate marketing efforts intended to persuade consumers to buy or use a company’s products and services could be interpreted as “dark pattern” practices that “trick or manipulate consumers into buying products or services.”⁷⁶

A. Legitimate Marketing Activities Seek to Influence Consumer Decision-Making Through Persuasion and Retention Efforts

52. Marketing science studies how marketing efforts can impact the consumer decision making process and how, through a better understanding of consumer needs, marketing efforts can be improved by developing strategies to fulfill those needs.⁷⁷ There are a variety of legitimate marketing activities a business can undertake to attempt to persuade consumers to try, purchase, or use its products and/or services.⁷⁸ These activities can include advertising, promotions, recommending complementary items for purchase (e.g., cross-selling), and offering free samples or trials of products or services, among others.⁷⁹

⁷⁵ “Bringing Dark Patterns to Light: Staff Report,” *Federal Trade Commission*, September 2022, https://www.ftc.gov/system/files/ftc_gov/pdf/P214800%20Dark%20Patterns%20Report%209.14.2022%20-%20FINAL.pdf, p. 2.

⁷⁶ Federal Trade Commission Press Release, “FTC Report Shows Rise in Sophisticated Dark Patterns Designed to Trick and Trap Consumers,” September 15, 2022, <https://www.ftc.gov/news-events/news/press-releases/2022/09/ftc-report-shows-rise-sophisticated-dark-patterns-designed-trick-trap-consumers>.

⁷⁷ Peter, J. P. and J. C. Olson (2010), *Consumer Behavior and Marketing Strategy*, 9th ed., New York, NY: McGraw-Hill/Irwin (“Peter and Olson (2010)”), pp. 7–8 (“[M]arketers need to understand what products and brands mean to consumers, what consumers must do to purchase and use them, and what influences shopping, purchase, and consumption. The more marketers know about how these interactions influence individual consumers, target markets of similar consumers, and society at large, the better they can satisfy consumer needs and wants and create value for them.”).

⁷⁸ Kotler, P. and K. Keller (2016), “Designing and Managing Integrated Marketing Communications” in *Marketing Management*, 15th ed., Hoboken, NJ: Prentice Hall (“Kotler and Keller (2016), 15th ed.”), pp. 579–605; Peter and Olson (2010), “Consumer Behavior and Promotion Strategy,” pp. 405–438.

⁷⁹ Kotler and Keller (2016), 15th ed., “Managing Mass Communications: Advertising, Sales Promotions, Events and Experiences, and Public Relations,” pp. 607–636; Peter and Olson (2010), “Consumer Behavior and Promotion Strategy,” pp. 405–438.

53. To understand how marketing efforts can impact the consumer decision making process, marketing researchers have developed frameworks and models to describe the consumer decision making process, including the different stages that consumers pass through to buy products and services.⁸⁰ According to one traditional framework, the consumer decision making process has been described by a hierarchical funnel metaphor where consumers start at the broad top of an inverted pyramid-shaped funnel, and then gradually move down the funnel, narrowing down their set of brand choices as they acquire information about the brands they become aware of, evaluating some of these brands in more detail, and then finally ending up at the bottom of the narrow end of the funnel with a final purchase.⁸¹ This purchase funnel framework was designed to aid marketing decisions in an era when marketers were largely in charge of how, what, and when consumers received information about brands at each and every stage of the process.

54. Since the late 2000s, the process by which consumers make purchasing decisions has evolved, largely due to factors including the rise of the Internet as both a communication and shopping medium, large growth in the number of brand choices, and a more informed consumer base.⁸² Corresponding with today's more complex shopping processes, the traditional framework has transitioned from the funnel concept to what is now often described as a cyclical "decision journey."⁸³

⁸⁰ The buying decision process can be described through a multi-stage framework, starting when the buyer recognizes a problem and ending with the postpurchase behavior. According to this framework, the first stage is a problem recognition in which consumers identify a need for a product and then seek to fill that need. Next, consumers enter the information search stage, during which they conduct research for detailed information about products that might satisfy their need. In the third evaluation of alternatives stage, consumers evaluate potential brands they are considering purchasing to meet the need, reduce the brands to a smaller number for final evaluation, and then come to a decision about the brand they intend to purchase from their final consideration set. In the purchase decision stage, consumers may adjust their intentions based on the attitudes of others and situational factors, and ultimately they execute a purchase. Lastly, in the postpurchase stage, consumers' satisfaction with the product affects whether or not they will buy it again in the future. *See, e.g.*, Kotler and Keller (2016), 15th ed., pp. 194–205.

⁸¹ Kotler and Keller (2016), 15th ed., pp. 163–164, 194–205; "The Consumer Decision Journey," *McKinsey & Company*, June 1, 2009, <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-consumer-decision-journey> ("McKinsey Consumer Decision Journey").

⁸² "Competing on Customer Journeys," *Harvard Business Review*, November 2015, <https://hbr.org/2015/11/competing-on-customer-journeys>; Lemon, K. N. and P. C. Verhoef (2016), "Understanding Customer Experience Throughout the Customer Journey," *Journal of Marketing*, 80, 69–96; Santos, S. and H. Martins Gonçalves (2021), "The Consumer Decision Journey: A Literature Review of the Foundational Models and Theories and a Future Perspective," *Technological Forecasting and Social Change*, 173.

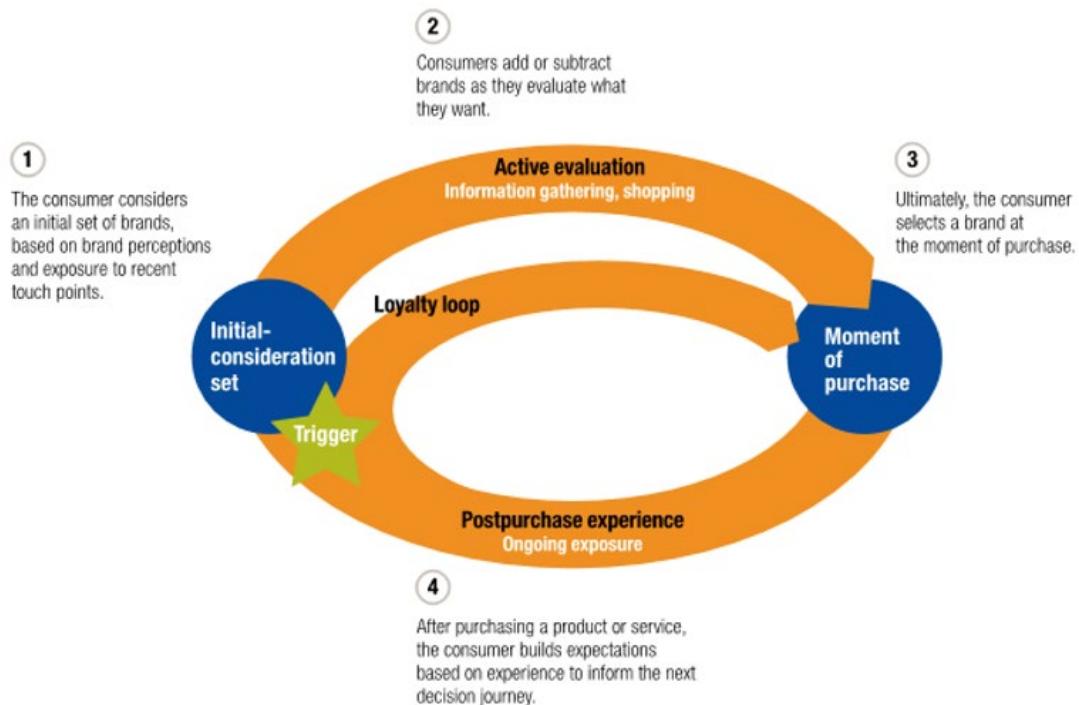
⁸³ Santos, S. and H. Martins Gonçalves (2021), "The Consumer Decision Journey: A Literature Review of the Foundational Models and Theories and a Future Perspective," *Technological Forecasting and Social Change*, 173; "Demystifying Social Media," *McKinsey & Company*, April 2012, <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/demystifying-social-media>; "Digitizing The Consumer Decision Journey,"

55. McKinsey & Company (“McKinsey”) describes the four phases of the cyclical decision journey as follows: 1) “Initial Consideration” when a consumer considers a set of brands based on perceptions and brand exposure; 2) “Active Evaluation” when a consumer adds or subtracts new brands through product research; 3) “Moment of Purchase” when a consumer makes a purchase; and 4) “Postpurchase” when a consumer utilizes the product, develops a postpurchase experience, and builds expectations for their next decision making process, when the cycle repeats.⁸⁴ This framework allows the consumer’s decision process to be more iterative as consumers can “hop between different stages of the funnel between multiple companies.”⁸⁵ A stylized depiction of McKinsey’s decision journey is shown below in Exhibit 2.

McKinsey & Company, <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/digitizing-the-consumer-decision-journey#/>; McKinsey Consumer Decision Journey.

⁸⁴ McKinsey Consumer Decision Journey.

⁸⁵ “The Evolution of Consumer Behavior in the Digital Age,” *Medium*, November 16, 2017, <https://medium.com/analytics-for-humans/the-evolution-of-consumer-behavior-in-the-digital-age-917a93c15888>; Hamilton, R. and L. L. Price (2019), “Consumer Journeys: Developing Consumer-Based Strategy,” *Journal of the Academy of Marketing Science*, 47, 187–191 at p. 190 (“Consumer journeys may encompass interactions with multiple firms, either by the design of the focal firm, as in the case of outsourcing, or in spite of its efforts, as in the case of comparison shopping”).

Exhibit 2 McKinsey Decision Journey


Source: McKinsey Consumer Decision Journey.

56. The consumer decision journey is an important conceptual and strategic tool for businesses because different marketing tactics are implied by the different stages of the journey. For example, during the *initial consideration* stage, a key focus for businesses is building brand awareness to acquire customers. In the *active evaluation* stage, a key focus for businesses is providing detailed information about their products and products' benefits relative to competitive offerings so that consumers can make informed decisions about which product to purchase. During the *moment of purchase* stage, businesses strive to make the product as easy to purchase as possible.

57. Most importantly, once a customer is acquired, in the *postpurchase* stage, it is imperative for the company to retain that customer for building long-term value.⁸⁶ This approach is based on investing in building long-term relationships with consumers to preserve the value of potential

⁸⁶ Kotler and Keller (2016), 15th ed., p. 163 (“The funnel also emphasizes how important it is not just to attract new customers but to retain and cultivate existing ones. ... Acquiring new customers can cost five times more than satisfying and retaining current ones.”).

repeated transactions.⁸⁷ This is supported by research that demonstrates that online retailers who can establish and maintain strong reputations are more likely to be trusted by consumers and more able to build long-term relationships with their customers.⁸⁸ As a result, firms oriented towards long-term objectives, such as Amazon, are well positioned to achieve higher rates of customer satisfaction, loyalty, and value.⁸⁹ Moreover, according to marketing science, it is significantly more cost-effective to retain customers than to acquire new ones.⁹⁰ Thus, it is in the company's best interest to maintain high levels of customer satisfaction, manage those factors that could decrease consumer satisfaction, and continuously engage customers with marketing efforts to reduce defection.⁹¹

58. Findings from this research are consistent with Amazon's approach to customer retention. Specifically, in Q4 2021, 38% of consumers in the United States made four or more repeat purchases on Amazon, while 29% of consumers made two to three repeat purchases.⁹² Furthermore, Amazon has been recognized by others in the industry as a leader in customer satisfaction.⁹³ Amazon ranks second based on the 2023 American Customer Satisfaction Index

⁸⁷ See, e.g., Steinhoff, L. et al. (2019), "Online Relationship Marketing," *Journal of the Academy of Marketing Science*, 47, 369–393 at p. 371 ("Since the Internet first became available for commercial purposes, firms have quickly recognized the value of nurturing continuous online relationships with their customers"). See also Palmatier, R. W. et al. (2019), *Handbook on Customer Centricity: Strategies for Building a Customer-Centric Organization*, Cheltenham, UK: Edward Elgar Publishing; Yerpude, S. and T. K. Singhal (2018), "Internet of Things based Customer Relationship Management – A Research Perspective," *International Journal of Engineering & Technology*, 7, 2.7, 444–450.

⁸⁸ Steinhoff, L. et al. (2019), "Online Relationship Marketing," *Journal of the Academy of Marketing Science*, 47, 369–393, pp. 376–378 ("Regarding the mechanisms that drive relationship performance, the processes appear to be the same as those that affect offline relationships, such that reciprocity and trust take paramount roles. ... When it comes to online relationship formation and its payoffs, three aspects are critical: risk-reducing signals, such as communication, reputation, and relational observation; the level of the buyer's experience; and the relationship type (unilateral vs. reciprocal).").

⁸⁹ See, e.g., Ganesan, S. (1994), "Determinants of Long-Term Orientation in Buyer-Seller Relationships," *Journal of Marketing*, 58, 2, 1–19; Lam, S. Y. et al. (2004), "Customer Value, Satisfaction, Loyalty, and Switching Costs: An Illustration from a Business-to-Business Service Context," *Journal of the Academy of Marketing Science*, 32, 3, 293–311.

⁹⁰ Kotler and Keller (2016), 15th ed., p. 163 ("Acquiring new customers can cost five times more than satisfying and retaining current ones").

⁹¹ Kotler and Keller (2016), 15th ed., pp. 153, 164 ("Winning companies improve that value by excelling at strategies like the following: Reducing the rate of customer defection ... Increasing the longevity of the customer relationship..."); Peter and Olson (2010), p. 387 ("Consumer satisfaction is a critical concept in marketing thought and consumer research.").

⁹² "Share of Consumers who Made Repeat Purchases from Amazon in the United States in 4th Quarter 2021," *Statista*, October 20, 2023, <https://www.statista.com/statistics/1317992/share-repeat-purchase-consumers-amazon-us/>, accessed on October 30, 2024.

⁹³ Amazon Press Release, "Amazon Ranks No. 1 for Value and Selection in the Latest American Customer Satisfaction Index (ACSI)," February 21, 2023, <https://www.aboutamazon.com/news/company-news/amazon-ranks->

Internet Retail Category, ranks third among Fortune World's Most Admired Companies in 2024, and ranks third among "Most Trusted Brands in the U.S." in 2023.⁹⁴ Further, recent reports by Evercore indicated that Amazon outranked other companies in terms of customer satisfaction and likelihood of renewing their membership.⁹⁵

59. Marketing efforts companies employ to retain customers and reduce defection involve providing exceptional customer services, continuous improvements on products and services, reminding customers of the benefits of the products or services, and personalizing interactions and communications with customers based on their preferences and purchase history.⁹⁶ These marketing efforts are taught in all levels of marketing classes in academic institutions as well as in industry training courses by leading scholars and practitioners.⁹⁷

B. Lack of Scientific Rigor to Define "Dark Patterns" Means Commonly Used Legitimate Marketing Practices Could Be Interpreted as "Dark Patterns"

60. Based on my review of the "dark patterns" literature, I find that the "dark patterns" literature generally lacks the scientific approach and is driven by vague, primarily descriptive definitions that are not rigorously operationalized, devoid of formally specified hypotheses, and

no-1-for-value-and-selection-in-the-latest-american-customer-satisfaction-index-acsi ("The ACSI survey also ranked Amazon first in measures such as customer loyalty, service quality, meeting customer expectations, and how likely a customer is to recommend Amazon to others.").

⁹⁴ "Awards and Recognition," *Amazon*, <https://www.aboutamazon.com/about-us/awards-recognition>.

⁹⁵ Evercore's 11th Annual Survey found that 82% of the users interviewed were "extremely" or "very satisfied" about Amazon's website, the highest percentage among the major platforms. See "Evercore ISI Amazon.com Inc. Report – Ship It To Win It – 11th Annual Survey," *Evercore ISI*, June 21, 2023, AMZN-PRM-FTC-002539869-87 at 74. Moreover, Evercore's 5th Annual Retail Membership Survey found that 95% of Prime members surveyed stated that they might or will definitely renew their membership. See "Membership Survey: Walmart+ vs Amazon Prime —Get Ready to Rumble," *Evercore ISI*, November 8, 2024, at p. 8.

⁹⁶ Kotler and Keller (2016), 15th ed., p. 168 ("Companies are using information about customers to enact precision marketing designed to build strong long-term relationships"); Reinartz, W. et al. (2005), "Balancing Acquisition and Retention Resources to Maximize Customer Profitability," *Journal of Marketing*, 69, 1, 63–79 at p. 65 ("Therefore, the ability to customize the message easily and build personal bonds with customers will eventually lead to greater retention through personal selling...").

⁹⁷ Kotler and Keller (2016), 15th ed., pp. 168–173; "MBA Program Course Descriptions," *The Wharton School*, <https://marketing.wharton.upenn.edu/mba-program-course-descriptions/> ("Marketing begins and ends with the customer, from determining customers' needs and wants to providing customer satisfaction and maintaining customer relationships."); "Managing Customers For Growth - Course Catalog," *Harvard Business School*, <https://www.hbs.edu/coursedatalog/1965.html> ("This course focuses on how firms design and implement customer management activities to achieve sustainable customer growth. We will delve into the fundamentals of customer value, analyze strategies for customer acquisition, retention, and development, and apply customer analytics tools and technologies that enable a data-driven approach to customer management."); "Online Digital Marketing Strategy Course," *Harvard Business School*, <https://online.hbs.edu/courses/digital-marketing-strategy/> ("Discover how to acquire and retain customers through paid, owned, and earned media... Explore customer engagement techniques, including personalization, storytelling, and community building").

not supported by any replicable hypothesis testing.⁹⁸ Absent a consensus definition from the academic literature of what constitutes a “dark pattern,” one cannot distinguish between legitimate marketing efforts and illegitimate “dark patterns.” This makes determining whether a business practice falls within the realm of one versus the other an intractable, subjective exercise.

61. Some academic literature offers broad, vague definitions of “dark patterns” that encompass the legitimate marketing efforts to attract and retain consumers as discussed above.⁹⁹

- a. For instance, Day and Stemler (2020) define “dark patterns” as “subtle design choices in digital interfaces intended to elicit certain behaviors from users.”¹⁰⁰ But this definition can easily be used to describe common marketing techniques given that almost all marketing activity is about eliciting attention, purchasing, and information from consumers.
- b. As another example, Curley et al. (2021) define “dark patterns” as “user interfaces that benefit an online service by leading users into making decisions they might not otherwise make.”¹⁰¹ Gunawan et al. (2021) similarly define “dark patterns” as “interface designs that lead users towards outcomes that benefit the platform over the user, or that steer users away from what they are intending to do.”¹⁰² Both of these definitions, however, can readily be used to describe legitimate marketing efforts targeted at persuading consumers to purchase or use a product or a service.

Based on these broad and vague definitions, it is not clear where the line is between the legitimate efforts of a business to influence consumers (e.g., by recommending items for purchase at checkout), and intentional, deceptive efforts by a business to trick consumers into doing things against their wishes.

⁹⁸ See, e.g., Mathur, A. et al. (2021), “What Makes a Dark Pattern...Dark? Design Attributes, Normative Considerations, and Measurement Methods,” *Conference on Human Factors in Computing Systems*, 360, 1–18.

⁹⁹ Marketing is “the science and art of exploring, creating, and delivering value to satisfy the needs of a target market at a profit.” Marketing activities include product development, pricing, distribution, and promotion which determines how a company advertise its product or service. See, e.g., “Dr. Philip Kotler Answers Your Questions on Marketing,” *Kotler Marketing Group*, https://kotlermarketing.com/phil_questions.shtml; Armstrong, G. and P. Kotler (2011), *Principles of Marketing*, Upper Saddle River, NJ: Prentice Hall, pp. 4–5.

¹⁰⁰ Day, G. and A. Stemler (2020), “Are Dark Patterns Anti-Competitive?,” *Alabama Law Review*, 72, 1–45 at p. 14.

¹⁰¹ Curley, A. et al. (2021), “The Design of a Framework for the Detection of Web-Based Dark Patterns,” *ICDS 2021: The 15th International Conference on Digital Society*, p. 1.

¹⁰² Gunawan, J. et al. (2021), “Towards an Understanding of Dark Pattern Privacy Harms,” *CHI '21, May 8–13 2021, Online Virtual Conference*, 1–5 at p. 1.

62. Other academic literature tries to narrow the definition of “dark patterns” by instituting the element of deception and manipulation by the company on consumers against their will. Accordingly, to determine if a marketing practice meets these definitions, one needs to assess both marketers’ intent and consumer’s cognitive state of mind for a given practice or UI design element to see if it constitutes a “dark pattern” versus a legitimate marketing strategy. However, academic literature is silent on how to achieve this.

- a. For instance, Cara (2019) claims that “[d]ark patterns are deceptive elements that are intentionally crafted to make the users do actions that they wouldn’t do otherwise.”¹⁰³ One of the “dark patterns” proposed by this paper is a “[h]ard opt-out,” which the author describes as “a dark pattern that makes [it] almost impossible for the user to get out of a situation, usually a subscription service. The getting out process is too complicated and requires too much effort.”¹⁰⁴ Unfortunately, this paper provides no guidance on how to evaluate whether a cancellation process is “almost impossible,” “too complicated,” or requires “too much effort” for the consumer to navigate, and similarly provides no guidance on how to assess if these difficulties consumers face are due to the company’s intentional choices. Without such guidance, one cannot distinguish between legitimate marketing practices aimed at retaining customers and the illegitimate “dark pattern” practice of a so-called “hard opt-out.”
- b. In another example, Bogliacino et al. (2023) define “dark patterns” as “user interfaces that intentionally confuse, coerce, deceive the consumers, leading to decisions inconsistent with individual preferences.”¹⁰⁵ However, the authors fail to explain by what potential mechanism one could assess marketers’ “intention” to “confuse, coerce, or deceive” the consumer or even how consumer decisions could be measured to demonstrate that they are “inconsistent” with their own preferences. Moreover, the authors’ survey design to test the impact of “dark patterns” on consumers suffers from a fatal flaw: the authors’ “test” group contains the messages specifically designed by the

¹⁰³ Cara, C. (2019), “Dark Pattern in the Media: A Systematic Review,” *Network Intelligence Studies*, 7, 14, 105–113 at p. 105.

¹⁰⁴ Cara, C. (2019), “Dark Pattern in the Media: A Systematic Review,” *Network Intelligence Studies*, 7, 14, 105–113 at p. 107.

¹⁰⁵ Bogliacino, F. et al. (2023), “Testing for Manipulation: Experimental Evidence on Dark Patterns,” *SocArXIV*, 1–37 (“Bogliacino et al. (2023)”) at p. 3.

authors to be “dark patterns;” yet these messages can also be considered as examples of legitimate marketing strategies. Specifically, the message designed for one of the “dark patterns” examined, the toying-with-emotions “dark pattern,” promotes “personalized suggestions to new content” and “personalized offer.”¹⁰⁶ The interface for another “dark pattern” includes personalized pictures depending on respondents’ gender and personality.¹⁰⁷ However, these practices could be interpreted as personalized marketing, which is one of the legitimate marketing strategies discussed above. That is, even if consumers react to toying-with-emotion or personalized marketing designs, it’s unclear if this is due to consumers being persuaded by legitimate marketing strategy or deceived by “dark patterns.”

63. Publicly available sources that discuss “dark patterns” have similar limitations, as their use of the term “dark patterns” typically includes common and legitimate marketing practices, and the sources do not provide a methodology to identify “dark patterns.” For example, in July 2024, the International Consumer Protection and Enforcement Network (“ICPEN”) published its reports related to “dark patterns.”¹⁰⁸ The ICPEN report defines a “dark pattern” to be practices that “steer, deceive, coerce, or manipulate consumers into making choices that often are not in their best interests.”¹⁰⁹ This report summarizes findings from a review of such “dark patterns,” in subscription services conducted by 27 ICPEN Consumer Protection agencies from across 26 countries.¹¹⁰ The ICPEN report states that of the 642 websites and mobile applications reviewed, 75.70% used at least one “dark pattern,” and 66.82% used multiple “dark patterns” when marketing their subscriptions.¹¹¹ According to ICPEN, the identified “dark patterns” include: (1)

¹⁰⁶ Bogliacino et al. (2023), p. 8. The message for toy-with-emotion treatment is “Don’t waste time looking for what to watch. Choose this offer and we will give you personalized suggestions to new content you’ll love. We have prepared this personalized offer just for you.”

¹⁰⁷ Bogliacino et al. (2023), p. 8. The dark pattern is using “psychological profiling to personalize the display for the consumers.”

¹⁰⁸ “ICPEN Dark Patterns In Subscription Services Sweep Public Report,” *International Consumer Protection Enforcement Network*, July 2, 2024, <https://icpen.org/sites/default/files/2024-07/Public%20Report%20ICPEN%20Dark%20Patterns%20Sweep.pdf> (“ICPEN Report”).

¹⁰⁹ ICPEN Report, p. 1.

¹¹⁰ ICPEN Report, p. 1.

¹¹¹ ICPEN Report, p. 1.

sneaking; (2) interface interference; (3) obstruction; (4) social proof; (5) forced action; (6) urgency; (7) nagging.¹¹²

64. However, the ICPEN report provides no mechanism for evaluating how or whether such “dark patterns” “steer, deceive, coerce, or manipulate consumers into making choices that often are not in their best interests” or for distinguishing such “dark patterns” from standard marketing practices that aim to persuade consumers. For example, the ICPEN report does not illustrate how one can evaluate whether consumers are acting “in their best interests” as consumers differ in their characteristics, preferences, and behavior. As another example, the ICPEN report lists “interface interference” as a type of “dark pattern,” which it defines as “an attempt to frame information in such a way that it steers consumers towards making decisions that are more favorable for the business.”¹¹³ However, this definition can equally be used to describe the legitimate marketing practice of eliciting attention and persuading a consumer to purchase a product or service from a business, which could be favorable to the customer. Indeed, as I describe in Section VIII.B.1.c, the use of repetition is a well-studied and legitimate marketing practice, while the FTC considers repetition in the Amazon’s enrollment flows an example of “interface interference.”

65. Overall, based on my analysis of the academic literature and publicly available sources to date, I find that there is no reliable definition of “dark patterns” which can be applied consistently across different UIs to assess the presence of “dark patterns” in any particular UI. In other words, as of today, whether a particular marketing activity is a legitimate marketing practice versus a “dark pattern” remains in the eye of the beholder.

C. To Date, No Scientific Framework Exists That Can Be Applied Consistently to Identify and Evaluate the Effect of a “Dark Pattern”

66. The scientific method is the gold standard in research because it allows researchers to demonstrate that their findings are reliable, replicable by others, and eventually allows the tested hypotheses to become generally accepted by researchers in the field.¹¹⁴ A rigorous scientific

¹¹² ICPEN Report, pp. 1–2.

¹¹³ ICPEN Report, p. 1.

¹¹⁴ Lawless, R. et al. (2016), *Empirical Methods In Law*, 2 ed., New York, NY: Aspen Publishers; Stangor, C. (2015), *Research Methods for the Behavioral Sciences*, 5th ed., Australia: Wadsworth Cengage Learning; Creswell, J. W.

approach to research involves the careful, systematic methodical investigation of a phenomenon following a standardized process known as the scientific method.¹¹⁵ The scientific method includes “hypothesis generation and testing, deductive and inductive logic, parsimony, and science’s presuppositions, domain, and limits.”¹¹⁶ The scientific method requires researchers to specify exactly what phenomenon they are examining, observe the phenomenon, and formulate testable hypotheses that can explain their observations. It also requires that the constructs under investigation be precisely defined in measurable terms so that they can be reliably and validly operationalized. Rigorous experiments are then designed and conducted to test the hypotheses systematically. The data from these experiments is analyzed using appropriate statistical methods to determine whether a hypothesis can be supported or refuted. This process is repeated by other researchers to ensure the reliability and generalizability of the phenomenon. This iterative process of hypothesis testing, refinement, and retesting allows researchers to build a robust and credible understanding of the phenomenon under study.

67. The general scientific method framework to study phenomena requires the formulation of a hypothesis and the test of such hypothesis by analyzing data.¹¹⁷ In the context of UIs, this means that one would need to establish: (i) the variable(s) of interest to measure, (ii) a statistical test to determine whether the variable of interest has any significant impact on outcomes with and without the UI of interest, and (iii) a threshold above which one can conclude that any differences in the variable of interest between the online environments with and without the UI of interest is unlikely to result from chance. To date, I am aware of no such scientific framework that has been applied to “dark patterns” or to analyze the effects of “dark patterns” on consumers who encounter them.

68. There are multiple reasons as to why such a framework does not yet exist. As an initial matter, there is no scientifically established consensus on the definition of what constitutes “dark patterns,” as I discuss above.

(2014), *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, 4th ed., Thousand Oaks, CA: SAGE Publications, Inc.

¹¹⁵ Gauch, H. G., Jr. (2003), *Scientific Method in Practice*, Cambridge, UK: Cambridge University Press, pp. 19–20; Popper, K. (2002), *The Logic of Scientific Discovery*, 2nd ed., London, UK: Routledge.

¹¹⁶ Gauch, H. G., Jr. (2003), *Scientific Method in Practice*, Cambridge, UK: Cambridge University Press, p. 1.

¹¹⁷ Gauch, H. G., Jr. (2003), *Scientific Method in Practice*, Cambridge, UK: Cambridge University Press, p. 1.

69. Furthermore, based on my review of empirical efforts to date that have analyzed consumer responses to “dark patterns,” I find a lack of clear outcome variables that one could test to determine the effects of “dark patterns” on a consumer.

70. Take, for example, the definition used by Luguri and Strahilevitz (2021) that refers to “dark patterns” as “interfaces whose designers knowingly confuse users.”¹¹⁸ To test this effect (i.e., consumer confusion caused by the interface), it would not be sufficient to merely observe the consumer behavior (e.g., the probability of purchasing product A over product B) because the change of behavior could be due not to confusion, but to legitimate marketing effort that persuaded the consumer. Instead, one would need to measure whether consumers are confused based on their interactions with the interface and whether the company intentionally tried to confuse the consumer. Although confusion is a cognitive state that can arise from specific aspects of a UI,¹¹⁹ in the case of Luguri and Strahilevitz (2021), the authors do not identify or put forward any mechanism to specify which variable of interest should be used to measure consumer confusion, despite using that effect to define “dark patterns.”¹²⁰ Similarly, the authors do not offer any mechanism to specify which variable of interest can be used to evaluate companies’ intention as the authors do not try to evaluate that in their study. They simply assume the companies intend to confuse consumers by using scenarios designed to be “dark patterns” in their study.¹²¹

71. As another example, Di Geronimo et al. (2020) defined a “dark pattern” as “an interface maliciously crafted to deceive users into performing actions they did not mean to do.”¹²² Based on this definition, to test whether a practice involves a “dark pattern,” one would need to

¹¹⁸ Luguri, J. and L. J. Strahilevitz (2021), “Shining A Light On Dark Patterns,” *Journal of Legal Analysis*, 13, 1, 43–109 (“Luguri and Strahilevitz (2021)”) at p. 43.

¹¹⁹ Walsh, G. et al. (2007), “Consumer Confusion Proneness: Scale Development, Validation, and Application,” *Journal of Marketing Management*, 23, 7–8, 697–721.

¹²⁰ Luguri and Strahilevitz (2021), p. 43.

¹²¹ According to Luguri and Strahilevitz, “dark patterns” also encompass “user interfaces whose designers knowingly...make it difficult for users to express their actual preferences, or manipulate users into taking certain actions.” However, Luguri and Strahilevitz do not identify or put forward any mechanism to specify which variables of interest should be used to measure consumer’s perception that the interface complicates the expression of their preferences, or manipulates them into taking an action. Similarly, they do not offer any mechanism to specify which variable of interest can be used to evaluate companies’ intentions “complicate” or “manipulate.” See Luguri and Strahilevitz (2021), p. 44 (“Dark patterns are user interfaces whose designers knowingly confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions.”).

¹²² Di Geronimo, L. et al. (2020), “UI Dark Patterns and Where to Find Them: A Study on Mobile Applications and User Perception,” *CHI Conference on Human Factors in Computing Systems*, p. 1.

evaluate (1) whether the company “maliciously crafted” the interface and (2) whether the resulting effect was that consumers were “deceive[d]” and “perform[ed] actions they did not mean to do.” Testing these effects requires variables that measure whether an interface deceived a consumer and whether the consumer, as a result, performed an action they did not mean to do. Yet, this paper fails to propose any mechanism to test these constructs. Instead, the authors reviewed 240 mobile apps and subjectively decided whether each app contained a “dark pattern” design. However, this subjectively decided variable is not reliable as it cannot be replicated by others.

72. Furthermore, even if there were consensus on which variables of interest should be measured (and to date there is not), the findings on such variables cannot be generalized without the use of scientific tools.¹²³ There are many scientific tools commonly used in behavioral science to analyze consumer response to a given stimulus. For example, surveys and controlled experiments are commonly used in marketing science to gather quantitative and qualitative evidence on consumers’ processing of information, decision-making, as well as the cognitive processes involved, e.g., attention, perception, emotions, and memory.¹²⁴ None of these tools have been rigorously applied to assess the alleged impact of “dark patterns,” and the attempts to do empirical research on this issue have been limited in scope at best.

73. There are a handful of recent empirical papers that use scientific tools such as those I described above to analyze consumer responses to “dark patterns.” Generally, these papers also fall short of providing a replicable methodology to identify and assess “dark patterns” on UI interfaces. For example, some simply assume that certain web interfaces contain “dark patterns” and analyze how consumers interact with these interfaces or make decisions.¹²⁵ Plainly, then,

¹²³ An empirical generalization is “a pattern or regularity that repeats over different circumstances and that can be described simply by mathematical, graphic, or symbolic methods.” See Bass, F. M. (1995), “Empirical Generalizations and Marketing Science: A Personal View,” *Marketing Science*, 14, 3, G6–G19 at p. G6; Hanssens, D. M. (2018), “The Value of Empirical Generalizations in Marketing,” *Journal of the Academy of Marketing Science*, 46, 6–8 at p. 6.

¹²⁴ See, e.g., Hulland, J. et al. (2018), “Marketing Survey Research Best Practices: Evidence and Recommendations from a Review of Jams Articles,” *Journal of the Academy of Marketing Science*, 46, 1, 92–108 at pp. 92–93; Gneezy, A. (2017), “Field Experimentation in Marketing Research,” *Journal of Marketing Research*, 54, 1, 140–143 at p. 140.

¹²⁵ The academic literature contains only a small number of articles that explore the concept of “dark patterns” using empirical methodologies. See, e.g., Luguri and Strahilevitz (2021), pp. 43, 58–59; Conti, G. and E. Sobieski (2010), “Malicious Interface Design: Exploiting the User,” *Proceedings of the 19th International Conference on World Wide Web*, 271–280 at pp. 271, 274.

impact remains unclear. For example, Luguri and Strahilevitz (2021) conducted two experiments and compared consumers' likelihood to subscribe to a privacy protection service under different web interfaces, including two treatment conditions they refer to as "mild" and "aggressive" "dark patterns."¹²⁶ However, the authors provide no insights on how to test whether a certain interface is a "dark pattern," let alone an "aggressive" versus a "mild" "dark pattern." Both "dark patterns" interfaces in Luguri and Strahilevitz (2021) require the consumer to navigate through additional screens relative to the control condition (without "dark patterns"), which has a single page with an option to accept and an option to decline an offer of a privacy protection service. The "mild dark patterns" treatment includes language that recommends accepting the offer and adds two screens in the flow for the consumers to decline the offer. The "aggressive" treatment builds on the "mild" treatment interface and adds further steps and a "confusing trick question" for consumers to decline the offer.¹²⁷ The authors find that different versions of the "dark patterns" interfaces could affect consumer behavior differently relative to the interface without "dark patterns." For example, they find that consumers in the "aggressive dark pattern" condition were almost four times as likely to accept the offer compared to consumers in the control condition without "dark patterns," while consumers in the "mild dark patterns" condition were more than twice as likely to accept the offer compared to consumers in the control condition.¹²⁸ Because of the ad hoc nature of these interface patterns, it is simply not possible to extrapolate the consumer response to the "dark patterns" as described and analyzed in this study to other settings, nor to make empirical generalizations. Moreover, this paper is not helpful in identifying if a company uses "dark patterns" as the study setup simply *assumes* the companies use "dark patterns." At best, the results are limited to the study setting, or the specific set of interfaces and the outcome variables used in the study.

74. The lack of a consensus and scientific definition of "dark patterns," as I discussed in the previous section, makes it difficult to explicitly test whether a particular interface represents a

¹²⁶ Luguri and Strahilevitz (2021), pp. 43, 61–63.

¹²⁷ The "confusing trick question" used in the study to decline the offer is "If you decline this free service, our corporate partner won't be able to help you protect your data. You will not receive identity theft protection, and you could become one of the millions of Americans who were victimized by identity theft last year. Are you sure you want to decline this free identity theft protection?" And the options are "No, cancel" and "Yes." The question in the experiment refers to the enrollment to the service but is framed as cancellation. *See* Luguri and Strahilevitz (2021), pp. 61–63.

¹²⁸ Luguri and Strahilevitz (2021), p. 43.

“dark pattern” or a legitimate marketing effort to attract and retain customers. The defining of “dark patterns” in terms of an untestable effect on the consumer further illustrates how the lack of a framework to define and identify “dark patterns” hinders the ability to distinguish them from legitimate marketing practices, as discussed in the preceding subsections.

75. Mathur et al. (2019) reviewed definitions of “dark patterns” in the academic literature and in the governmental sources published through December 2020 and developed an automated web crawler to extract “dark patterns” from over 11,000 shopping websites. They found about 1,800 distinct examples of dark patterns based on the definitions they used.¹²⁹ Sin et al. (2023) reviewed the findings from Mathur et al. (2019) and noted that “it [is] impossible to test [] all” of those definitions of “dark patterns.”¹³⁰ Many of these studies indeed acknowledge that this numerosity of definitions is a major obstacle for applying the scientific method to this literature. For example, Gunawan et al. (2021) examine how “dark patterns” vary across mobile apps, mobile browsers, and web browsers for 105 popular services.¹³¹ They find that usage of “dark patterns” terminology is not consistent across modalities and services,¹³² and they identify large differences across modalities.¹³³ They reinforce this point by comparing their findings with the findings from another paper, Di Geronimo et al. (2020), which examines 240 of the most popular Android apps.¹³⁴ The authors find large disparities in the frequency of “dark patterns” between the two studies, which they argue “accentuate[s] [the] challenges in dark pattern measurement based on codebook and corpus differences.”¹³⁵ The authors note “that more empirical research is needed, especially targeted studies per dark pattern and dark pattern category.”¹³⁶

¹²⁹ Mathur, A. et al. (2019), “Dark Patterns at Scale: Findings from a Crawl of 11K Shopping Websites,” *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 1–32 at p. 2.

¹³⁰ Sin, R. et al. (2023), “Dark Patterns in Online Shopping: Do They Work and Can Nudges Help Mitigate Impulse Buying,” *Behavioral Public Policy*, 1–27 at p. 3.

¹³¹ Gunawan, J. et al. (2021), “A Comparative Study of Dark Patterns Across Mobile and Web Modalities,” *Proceedings of the ACM on Human-Computer Interaction*, 5, CSCW2, 1–29 (“Gunawan et al. (2021)”) at p. 1.

¹³² Services refer to online services (e.g., Facebook, Spotify) and devices, or modalities, refer to the different mobile application, mobile browser, and web browser versions of those services.

¹³³ Gunawan et al. (2021), p. 1. See also Di Geronimo, L. et al. (2020), “UI Dark Patterns and Where to Find Them: A Study on Mobile Applications and User Perception,” *CHI Conference on Human Factors in Computing Systems*, p. 1.

¹³⁴ Gunawan et al. (2021), p. 13.

¹³⁵ Gunawan et al. (2021), p. 21.

¹³⁶ Gunawan et al. (2021), p. 22.

76. For the “dark patterns” research to advance beyond its current descriptive nature, the field needs to evolve towards a cohesive and unifying theoretical framework that can guide empirical analysis. As scientific analysis is an iterative process, theories can be revised, and new ones can be developed as more data and evidence come in from rigorous testing. Without theory, the entire analysis remains descriptive, lacking direction or purpose. “Dark patterns” research is entirely ungrounded in scientific theory. There simply is no current model to study the existence of “dark patterns” and their impact on consumers, nor how “dark patterns” are different from legitimate marketing practices, let alone a theory that can replicate results independently, which is a requirement for scientific rigor. Without such a framework, there is little other than a person’s own judgment to guide the scientific inquiry, formulate hypotheses for testing, and interpret results. Because of this, under the current state of the field, the determination of what constitutes a “dark pattern” remains highly subjective and unscientific.

VIII. The FTC’s Claims Regarding the At-Issue UI Design Elements in Amazon Prime Enrollment and Cancellation Flows Are Unfounded

A. The FTC’s Allegations Do Not Consider Standard Marketing Principles When Evaluating Whether Amazon’s Enrollment and Cancellation Flows Misled Consumers

77. The FTC’s allegations regarding Amazon’s enrollment and cancellation processes *assume* that Amazon’s efforts are nefarious and meant to mislead consumers. However, the FTC does not consider whether and how (if at all) Amazon’s efforts are different from standard marketing practices of customer acquisition and retention. Despite raising allegations that imply knowledge of what transpires inside the minds of consumers, the FTC’s approach makes no direct connection to what consumers actually think, consider, or what motivates them to take certain actions.¹³⁷

¹³⁷ Amended Complaint, ¶ 2 (“Amazon … ha[s] knowingly duped millions of consumers into unknowingly enrolling in its Amazon Prime service (‘Nonconsensual Enrollees’ or ‘Nonconsensual Enrollment’). Specifically, Amazon used manipulative, coercive, or deceptive user-interface designs known as ‘dark patterns’ to trick consumers into enrolling in automatically-renewing Prime subscriptions.”).

78. In marketing, a primary goal for a business is to identify and satisfy consumers' needs at a profit.¹³⁸ Scholars who teach marketing, including myself and others in universities around the world, recognize that customer acquisition and retention represent a legitimate marketing and business effort, and such recognition is based on decades of published research on consumer behavior.¹³⁹

79. The FTC's allegations fail to consider factors that have been shown in the academic literature to influence the consumer experience in online environments. As I explained in Section VI, goals, past experiences, and expectations interact to determine a consumer's contemporaneous online navigation experience and must be accounted for when analyzing any experiences with a given user-interface.¹⁴⁰ Specifically, consumers interpret each screen in the checkout and enrollment flow within (1) the context of the surrounding information on the page, (2) other information the consumer has been exposed to, including in earlier steps in the flow, (3) what, if any, prior knowledge the consumer possesses about the Prime program even before they start the flow, as well as (4) prior knowledge about checkout flows and membership programs offered by websites other than Amazon.

80. Furthermore, the FTC overlooks the fact that free trial offers are a concept that the majority of consumers are familiar with, as free trials are commonly used in online offers.¹⁴¹ Many consumers sign up for free trial offers which, like Prime, automatically turn into a paid digital membership/subscription program at the end of the free trial period if the consumer does

¹³⁸ Kotler and Keller (2016), 15th ed., p. 27 ("Marketing is about identifying and meeting human and social needs. One of the shortest good definitions of marketing is 'meeting needs profitably.'").

¹³⁹ Kotler and Keller (2016), 15th ed., pp. 168–173 ("Customer relationship management (CRM) is the process of carefully managing detailed information about individual customers and all customer "touch points" to maximize loyalty. CRM is important because a major driver of company profitability is the aggregate value of the company's customer base. A related concept, customer value management (CVM), describes the company's optimization of the value of its customer base. CVM focuses on the analysis of individual data on prospects and customers to develop marketing strategies to acquire and retain customers and drive customer behavior."); Reinartz, W. et al. (2005), "Balancing Acquisition and Retention Resources to Maximize Customer Profitability," *Journal of Marketing*, 69, 1, 63–79. See also descriptions of marketing courses, e.g., "MBA Program Course Descriptions," *The Wharton School*, <https://marketing.wharton.upenn.edu/mba-program-course-descriptions/> ("Marketing begins and ends with the customer, from determining customers' needs and wants to providing customer satisfaction and maintaining customer relationships.").

¹⁴⁰ See Section VI.

¹⁴¹ "Ecommerce Insights: Free Trials Aren't Dead," *Sticky.io*, December 2, 2024, <https://www.sticky.io/post/ecommerce-insights-free-trials-arent-dead> ("More than a quarter of merchants in 2023 use free trials as a conversion tactic, so consider the following reasons free trials can boost ecommerce revenue and create long-term customer relationships.").

not cancel.¹⁴² In fact, according to the August 2024 Free Trials Survey of U.S. adults conducted by Prof. Wilcox, 58% of respondents reported that they signed up for at least one free trial of a membership or subscription in the prior 12 months.¹⁴³ Moreover, 85% of respondents who reported to have signed up for at least one free trial in the prior 12 months reported that their most recent free trial either automatically turned into a paid membership or subscription at the end of the trial period, or would have automatically turned into a paid membership or subscription at the end of the trial period, had they not cancelled.¹⁴⁴ In addition, some consumers even sign up for the same free trial offer multiple times using different email addresses to extend their unpaid access to the offer’s benefits.¹⁴⁵ As discussed further below in Section IX.A.2, my analysis of paid digital membership/subscription programs found that around half of the programs I analyzed offered a free trial that automatically renewed (i.e., converted into a paid digital membership/subscription program) at the end of the trial, if not canceled before then. Thus, many consumers who purchased products on Amazon website and received the 30-day free trial offer were likely familiar with the concept of free trials and aware that, if they signed up for the free trial, some type of fee would be applicable at the end of the free trial period if they did not cancel before then.

81. Similarly, the FTC overlooks that Prime is an online membership, and the majority of consumers are familiar with online subscription services: a 2019 survey found that 76% of Americans have at least one online subscription service and half have two or more online subscription services.¹⁴⁶ Similarly, Prof. Wilcox’s Free Trials Survey found that 92.5% of

¹⁴² A Pollfish survey showed that 44% of respondents signed up for a free trial “[o]ften, whenever trial offers are given to me[.]” 71% of respondents signed up for free trials for streaming services and 49% of respondents signed up for free trials from online retailers. 45% of respondents said they would be “very discouraged” from paying for a service if it did not offer a free trial. *See “Survey: How Many Americans Are ‘Free Trial Hopping?’,” Frontier*, July 30, 2024, <https://go frontier.com/media-center/trial-hopping-survey>. *See also* Section IX.A.2.

¹⁴³ Wilcox Opening Report.

¹⁴⁴ Wilcox Opening Report.

¹⁴⁵ “Survey: How Many Americans Are ‘Free Trial Hopping?’,” *Frontier*, July 30, 2024, <https://go frontier.com/media-center/trial-hopping-survey> (“... you can sign up for another free trial using a different email address, and then another, and another. This is known as ‘trial hopping,’ and it’s a method some people use to continue enjoying the benefits of a paid subscription service without having to pay for it. ... we surveyed 1,000 people (between the ages of 16-54+) using Pollfish to learn about their trial hopping habits ... 71% of respondents signed up for a free trial for streaming services, making this category the most popular, followed by retail at 49%, food services at 47%, and software trials at 29%.”).

¹⁴⁶ A 2019 report indicates that 76% of surveyed Americans had at least one online subscription service, with 51% reporting they had two or more subscriptions. Video streaming services were the most popular, with 58% reporting at least one subscription, followed by online shopping at 41%. *See “3 in 4 Americans Have an Online Subscription,*

respondents paid for at least one type of membership or subscription, out of a list of 10 different categories (e.g., streaming, retail, news).¹⁴⁷ These findings suggest that consumers who enrolled in the 30-day free trial offer to Prime on Amazon website were likely familiar with the concept of online membership and aware that they could manage and cancel their membership.

82. Substantiating the FTC's allegations regarding "nonconsensual enrollment" and "complicated" cancellation process due to the use of "dark patterns" would require a rigorous analysis of consumer intentions based on objective standards.¹⁴⁸ Furthermore, the analysis of the impact of "dark patterns" on consumer behavior would require the analysis of how consumers interact with the at-issue UI design elements, including (1) how consumers consumed the at-issue information in the flow, (2) whether they used any of that information in their decision-making, (3) whether that caused their behavior to change (e.g., signing up for Prime when they would not have otherwise), and (4) whether the cognitive mechanism for that behavioral change was deception, coercion, or manipulation, as the FTC alleges.

83. Further, regarding Amazon's cancellation flows, the FTC does not consider consumers' motivations when navigating the flow, and assumes that all consumers who enter the flow have made a final decision to cancel at the time they enter the flow.¹⁴⁹ When a consumer arrives at a specific Amazon page, Amazon does not know why that consumer is visiting that page, whether they have made a final decision to cancel their membership, and, if so, the reasons they want to cancel their membership. As marketing theory would argue, companies want to inform customers about the relevant benefits associated with products or services offered.¹⁵⁰ Companies also want to empower their customers to make decisions appropriate to their needs by offering, for example, alternative options that best fit their needs given their specific reasons for a product

and Video Streaming is King," *LendingTree*, March 25, 2019, <https://www.lendingtree.com/credit-cards/study/americans-have-an-online-subscription-and-video-streaming-is-king/#method>.

¹⁴⁷ Wilcox Opening Report.

¹⁴⁸ Amended Complaint, ¶¶ 2, 7–8, 231.

¹⁴⁹ Amended Complaint ¶ 231.c.i ("Amazon also uses Obstruction by ... forcing consumers who have already expressed an intent to cancel by locating and entering the Iliad Flow to view marketing and reconsider options other than cancellation.").

¹⁵⁰ Meyvis, T. and C. Janiszewski (2002), "Consumers' Beliefs About Product Benefits: The Effect of Obviously Irrelevant Product Information," *Journal of Consumer Research*, 28, 4, 618–635 at p. 621 ("Consumers selectively search for information that suggests that the product will deliver the benefit, and they classify product information with respect to this search goal. ... When information is classified as confirming, it strengthens consumers' beliefs that the product will deliver the benefit.").

return or membership cancellation or the like.¹⁵¹ Efforts such as these to retain customers represent standard marketing practice. As discussed below in Section IX, 80% of subscription service cancellation flows that I reviewed mentioned the program's benefits. The FTC makes no effort to differentiate these types of legitimate marketing behaviors from the specific allegations targeted to Amazon Prime's cancellation process.

B. Analyses of Amazon's Prime At-Issue Desktop Enrollment Flows

84. The Amended Complaint contains a series of allegations regarding deceptive interface elements used by Amazon in certain Prime desktop enrollment flows and their implications on consumers' enrollment behavior.¹⁵² The Amended Complaint describes the Prime enrollment through the "interstitial" UPDP page, three "non-interstitial" pages within the product purchase flows (the SOSP, the SPC, the TrueSPC), and the Prime Video flow.¹⁵³ The Amended Complaint defines an interstitial as "a page that interrupts consumers' online shopping experience by appearing before the page that consumers seek to access in the first place" as opposed to "non-interstitial upsells ... imbedded within checkout pages, including shipping-option selection and payment pages."¹⁵⁴ Under the FTC's description, an "interstitial" is a UI design element that can "interrupt[] consumers' online shopping experience by appearing before the page that consumers seek to access in the first place."¹⁵⁵ In this report, I use the term "overlays" to refer to UI design elements that appear over the content of the page (e.g., a popup) or as a full standalone webpage that require the consumer to take an action regarding the offer before they can progress in the flow (i.e., the consumer is required to click call-to-action features embedded in the overlay such as accepting, declining, or learning more about the offer, or to click an "X" to exit the overlay and continue).

¹⁵¹ Smith, W. R. (1956), "Product Differentiation and Market Segmentation as Alternative Marketing Strategies," *Journal of Marketing*, 21, 1, 3–8 at p. 4 ("Lack of homogeneity on the demand side may be based upon different customs, desire for variety, or desire for exclusiveness or may arise from basic differences in consumer needs.").

¹⁵² Amended Complaint, ¶ 2 ("Amazon ... ha[s] knowingly duped millions of consumers into unknowingly enrolling in its Amazon Prime service ('Nonconsensual Enrollees' or 'Nonconsensual Enrollment'). Specifically, Amazon used manipulative, coercive, or deceptive user-interface designs known as 'dark patterns' to trick consumers into enrolling in automatically-renewing Prime subscriptions.").

¹⁵³ Amended Complaint, ¶ 37.

¹⁵⁴ Amended Complaint, ¶ 36.

¹⁵⁵ Amended Complaint, ¶ 36.

85. In the rest of the section, I analyze the following desktop enrollment flows: the UPDP page, the SPC flow, the SOSP flow, the TrueSPC flow, and the Prime Video flow. For the reasons discussed below, I find that the FTC's allegations that these flows contain deceptive interface elements are unfounded, show a lack of consideration for standard marketing practices, and are inconsistent with the basic tenets of online consumer behavior.

1. Enrollment via Amazon's Prime Universal Prime Decision Page

a. Overview of the UPDP page

86. I understand that between 2017 and 2023 Amazon showed consumers navigating the product purchase process the Universal Prime Decision Page (or "UPDP page"), a page which provides a 30-day free trial offer to Amazon Prime. I also understand that Amazon typically presented the UPDP page as a page prior to the checkout confirmation page. If a consumer decided to accept this offer, they were immediately enrolled in the free trial of Amazon Prime.¹⁵⁶ Assuming that the consumer did not subsequently cancel their Amazon Prime membership during the free trial period, the membership would automatically renew at the end of the free trial period, with a monthly fee charged to the payment method saved to the consumer's Amazon account.¹⁵⁷

87. The UPDP page can be seen in Exhibit 3. Amazon has used different versions of the UPDP page over time and the FTC has made allegations against multiple versions in its Amended Complaint.¹⁵⁸ Despite variations over time, the design features (including those the FTC is making allegations against) have remained similar. For example, almost all versions of the UPDP page in the Amended Complaint contain a headline that indicates the consumer is being offered a free trial of Prime.¹⁵⁹ Similarly, almost all versions include information about

¹⁵⁶ Amended Complaint, ¶ 40.

¹⁵⁷ Amended Complaint, Attachment B ("By signing up, you agree to the Amazon Prime Terms and authorize us to charge your [default payment method] or another payment method on file after your 30-day free trial. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings.").

¹⁵⁸ Amended Complaint, ¶ 39. *See also* Amended Complaint, Attachments A–F.

¹⁵⁹ Amended Complaint, Attachments A–F. The version in Attachment A is the only one that has a headline that emphasizes "free two-day shipping on this order," whereas all other versions of the UPDP page mentioned in the complaint emphasize a 30-day free trial for Prime.

Prime benefits,¹⁶⁰ and all versions provide the option to either accept or decline the offer, with some minor variations across the versions in the language used for the option to accept/decline the offer.¹⁶¹ Additionally, all versions of the UPDP page in the Amended Complaint provide information on other key terms of the offer, including the payment method, autorenewal policy (i.e., that the payment method will be charged if the consumer does not cancel within 30 days, after which point the Prime membership will continue until cancelled), price, and information on how to cancel.¹⁶²

¹⁶⁰ Amended Complaint, Attachments A–F. The version in Attachment E is the only one that indicates only one benefit as free delivery, whereas all other versions of the UPDP page mentioned in the complaint present a list with multiple benefits.

¹⁶¹ Amended Complaint, Attachments A–F. For example, options in Attachment A are “Get FREE Two-Day Shipping - Enjoy Prime FREE for 30 days” and “No thanks, I do not want fast, free shipping,” and options in Attachment E are “Get FREE Prime Delivery with Prime – Enjoy Prime FREE for 30 days” and “No thanks.”

¹⁶² Amended Complaint, Attachments A–F.

Exhibit 3 Universal Prime Decision Page

Test, we're giving you a 30-day FREE trial of Prime

No minimum order threshold for FREE One-Day Delivery

Your top Prime eligible item in cart:

Your Prime benefits include:

Delivery Speed	prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery	FREE
Two-Day Delivery	FREE

Save \$7.52 on your Prime eligible items with FREE Same-Day Delivery on this order.

No thanks, I do not want FREE delivery

Get FREE Same-Day Delivery

Enjoy Prime FREE for 30 days

Having difficulties? Please visit our Help page to learn more about placing an order.

Conditions of Use | Privacy Notice © 1996-2020, Amazon.com, Inc.

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 18.

b. FTC's Claims regarding "Forced Action"

88. The FTC alleges that, with the UPDP page, Amazon uses "forced action."¹⁶³ The FTC defines "forced action" as "a design element that requires consumers to perform a certain action to complete a process or to access certain functionality."¹⁶⁴

89. In particular, the FTC alleges that Amazon's UPDP page "forces the consumer to choose whether to enroll in Prime before allowing the consumer to complete their purchase,"¹⁶⁵ and

¹⁶³ Amended Complaint, ¶ 231.a.

¹⁶⁴ Amended Complaint, ¶ 231.a.

¹⁶⁵ Amended Complaint, ¶ 231.a.i.

“interrupts consumers’ online shopping experience by presenting them with a prominent button to enroll in Prime and a comparatively inconspicuous link to decline. Consumers cannot avoid the UPDP page. The upsell forces consumers to select either the button or the link to proceed to checkout.”¹⁶⁶

90. The design features that relate to the FTC’s “forced action” allegations, per the Amended Complaint, are highlighted with a red box in Exhibit 4.¹⁶⁷ The UPDP page contains the options to either decline or accept a free trial offer of Prime. The consumer can decline the 30-day free trial offer by clicking the blue hyperlinked text that says, “No thanks, I do not want FREE delivery.” Alternatively, the consumer can accept the 30-day free trial offer by clicking the orange button that includes the text, “Get FREE Same-Day Delivery,” sitting above a gray box that includes the text, “Enjoy Prime FREE for 30 days.”¹⁶⁸

¹⁶⁶ Amended Complaint, ¶ 38.

¹⁶⁷ Amended Complaint, ¶ 231.a.

¹⁶⁸ According to the Amended Complaint, the blue hyperlinked text reads “No thanks, I do not want fast, FREE delivery” or “No thanks, I do not want fast, free delivery,” and the orange button includes the text “Get FREE Two-Day Shipping.” See Amended Complaint, ¶¶ 39–41. See also Amended Complaint, Attachments A–B.

Exhibit 4 Alleged “Forced Action” on Universal Prime Decision Page

Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 18.

Note: Red box added for emphasis.

91. First, the definition used by the FTC to define “forced action” is broad and can encompass many commonplace elements present in online flows. For example, the FTC’s definition could encompass call-to-action “continue” buttons that customers have to click to proceed through the checkout flow. Places in the checkout flow where customers must fill out certain information, such as shipping address, would also be encompassed in the FTC’s definition of “forced actions” as they also “require[] consumers to perform a certain action to complete a process or to access certain functionality.” As I discussed in Section VII, having such a broad and descriptive definition makes determining whether a business practice falls within the realm of legitimate marketing efforts versus the illegitimate “dark patterns” an intractable, subjective exercise.

92. In addition, while the FTC and Amazon refer to the UPDP page as an “upsell,” this type of offer is generally known as a “cross-sell” in the marketing literature and industry best practices.¹⁶⁹ An “upsell” is the practice of offering a more expensive or premium product than the one that consumers are currently purchasing, and a “cross-sell” is the practice of offering a related or complementary product.¹⁷⁰ The Prime free trial offer represents a cross-sell rather than an upsell since it involves offering the consumer an additional service that is complementary to and distinct from what they are currently purchasing.¹⁷¹ Exhibit 5 illustrates the differences between an upsell and cross-sell. For the sake of clarity, hereinafter, I will refer to the UPDP page as a cross-sell.

Exhibit 5 Difference between Upselling and Cross-Selling

	Upselling	Cross-Selling
Definition	Selling “more” or upgraded instances of the product or service that could benefit the customer by providing additional value	Selling related or complementary products or services with the existing purchase that could benefit the customer by providing additional value
Goal	Increase volume or price of product being purchased to increase spend	Increase number of distinct products purchased to increase spend
Example	“Would you like to upsize those fries for a dollar more?” “Would you like to upgrade your phone to the model with more storage?”	“Would you like fries with that?” “How about a case to go with your new phone?”

Source: Adapted from Blattberg, R. C. et al. (2008), “Cross-Selling and Up-Selling,” in *Database Marketing*, New York, NY: Springer, 515–547.

93. In arguing that the UPDP page is problematic to the extent it creates “forced action,” the FTC ignores that cross-sells during the checkout process represent a commonly used online

¹⁶⁹ I understand Amazon also refers to this type of offer as an “upsell” in its internal documents. *See, e.g.*, “Prime Account CX Satisfaction,” March 2021, AMZN_00110901-19 at 01. *See also* Amended Complaint, ¶¶ 36–38 (where the FTC refers to the UPDP page as an “upsell”).

¹⁷⁰ Blattberg, R. C. et al. (2008), “Cross-Selling and Up-Selling,” in *Database Marketing*, New York, NY: Springer, 515–547.

¹⁷¹ *See, e.g.*, “What is the Difference Between Upselling and Cross-Selling?,” *BigCommerce*, <https://www.bigcommerce.com/glossary/upselling-and-cross-selling/>.

feature that is consistent with consumers' expectations about online shopping experiences. Cross-selling Prime to Amazon customers during the checkout practice is consistent with legitimate marketing practices and provides benefits to consumers who may be interested in such an offer.

94. Cross-selling is a marketing technique designed to offer existing customers the opportunity to purchase additional products or services that are related to the product they are currently purchasing.¹⁷² Cross-selling can be beneficial for consumers, and represents a valuable customer relationship management tool that allows companies to offer solutions for additional customer needs after addressing the initial purchase.¹⁷³ The cross-selling technique is commonly used across a variety of industries, including financial services, healthcare, insurance, and retail.¹⁷⁴ For example, customers who purchase a new computer are encouraged to purchase computer accessories, bank checking account customers are offered investment opportunities in addition to their regular banking services, and customers who purchase makeup products receive recommendations about makeup application tools such as brushes or eye makeup remover.¹⁷⁵ Industry studies on online advertising also show that, in 2020, 80% of e-commerce businesses in the U.S. reported using cross-selling to increase sales, and cross-selling strategies can increase revenue by up to 30%.¹⁷⁶ Digital consumers are therefore likely to have encountered cross-sells

¹⁷² Blattberg, R. C. et al. (2008), "Cross-Selling and Up-Selling," in *Database Marketing*, New York, NY: Springer, 515–547; "Upselling vs. Cross-Selling: The Ultimate Guide," *Shopify*, November 1, 2020, <https://www.shopify.com/blog/upselling-and-cross-selling>; "What is Cross-Selling? The Ultimate Guide," *Shopify*, September 13, 2022, <https://www.shopify.com/blog/what-is-cross-selling>.

¹⁷³ Kamakura, W. (2007), "Cross-Selling: Offering the Right Product to the Right Customer at the Right Time," in *Profit Maximization Through Customer Relationship Marketing*, New York, NY: Routledge, 41–58 at pp. 43–44 ("Within the context of customer relationship management, cross-selling has become a valuable strategy for customer development, for several reasons. ... many customer-focused enterprises are taking advantage of cross-selling as a tool for customer development. ... in general, customers' reaction to cross-selling is surprisingly positive. A study conducted in 2005 by Forum Corp., a Boston global leader in workplace learning, with a sample of 1624 consumers around the world (focused on older, more affluent consumers) showed that 88% value service reps who suggest alternative products and services that better meet their needs. ... The top factors affecting their willingness to consider purchasing additional products/services were satisfaction with current purchase and how well additional services meet their needs.").

¹⁷⁴ Li, S. et al. (2011), "Cross-Selling the Right Product to the Right Customer at the Right Time," *Journal of Marketing Research*, 48, 4, 683–700 at p. 683 ("[Cross-selling] ranks as a top strategic priority for many industries, including financial services, insurance, health care, accounting, telecommunications, airlines, and retailing.").

¹⁷⁵ "Upselling vs. Cross-Selling: The Ultimate Guide," *Shopify*, November 1, 2020, <https://www.shopify.com/blog/upselling-and-cross-selling>; "What is Cross-Selling? The Ultimate Guide," *Shopify*, September 13, 2022, <https://www.shopify.com/blog/what-is-cross-selling>.

¹⁷⁶ "19 Cross Selling Statistics in 2023," *Data Axle USA*, <https://www.dataaxleusa.com/blog/cross-selling-statistics/>.

multiple times when browsing and shopping online and are likely to be familiar with this practice.

95. The FTC further claims that the UPDP page “interrupts consumers’ online shopping experience.”¹⁷⁷ However, the Prime free trial offer is an example of cross-selling the customer on a product or service that may be of interest to them or complementary to their intended product purchase.

96. First, consumers who encounter the UPDP page are in the process of purchasing the product(s) in their cart; Amazon’s free trial offer, which highlights free delivery, is therefore directly relevant to the decisions they need to make in the checkout process. Cross-sells, including offers of free shipping, are commonly used in this context of ecommerce purchases, as evidenced by the marketing literature and industry sources (as well as my own analysis which is discussed in Section IX).¹⁷⁸

97. In addition, a 30-day free trial of Prime membership provides free, fast delivery on the consumer’s current purchase and their future purchases in the next 30 days, among various other benefits.¹⁷⁹ Such an offer may be of value to consumers going through a purchase process on Amazon (e.g., consumers who may be planning to make multiple purchases around the holiday season).

98. Finally, the FTC’s allegations that the UPDP page “interrupts consumers’ online shopping experience” do not take into account that some consumers benefit from evaluating the Prime offer during the checkout process.¹⁸⁰ The marketing literature shows that a consumer’s perceived value of a product depends on how the characteristics of a product are communicated to potential consumers, and this perceived value might differ from the objective value if

¹⁷⁷ Amended Complaint, ¶ 38 (“Although the UPDP has changed over time, it generally interrupts consumers’ online shopping experience by presenting them with a prominent button to enroll in Prime and a comparatively inconspicuous link to decline.”).

¹⁷⁸ See, e.g., “What is Cross-Selling? The Ultimate Guide,” *Shopify*, September 13, 2022, <https://www.shopify.com/blog/what-is-cross-selling> (“In this guide, we’ll break down the common sales and marketing technique known as cross-selling and share exactly how you can use it in your business to drive more sales, which can lead to increased customer lifetime value.”); “Upselling vs. Cross-Selling: The Ultimate Guide,” *Shopify*, November 1, 2020, <https://www.shopify.com/blog/upselling-and-cross-selling> (“Another great way to upsell customers is by providing free shipping if the shopper hits a certain threshold.”). See also Section IX.A.2.a.(8).

¹⁷⁹ “Amazon Prime,” *Amazon*, <https://www.amazon.com/amazonprime>.

¹⁸⁰ Amended Complaint, ¶ 38.

communication about product information is not tailored to their needs.¹⁸¹ Consistent with the literature, consumers might find the Prime offer compelling and decide to enroll into the membership program because of the information presented during the checkout process while they are evaluating shipping options. For example, UPDP page shows an estimate of how much the consumer would save on shipping for their current order and an overview of the free shipping options for future orders included in a Prime membership. Both types of benefits could be valuable to customers who are evaluating shipping options.

c. FTC's Claims regarding "Interface Interference" and "Sneaking"

99. The FTC alleges that Amazon uses "interface interference," which the FTC defines in the Amended Complaint as "a design element that manipulates the consumer interface in ways that privilege certain specific information relative to other information."¹⁸² In particular, the FTC alleges that "Amazon uses Interface Interference in its Prime checkout enrollment flow, most versions of which reveal the terms and conditions of Prime only once during the purchase process, and then only in a small, easy-to-miss font."¹⁸³ In addition, the FTC alleges that Amazon "uses repetition and color to direct consumers' attention" to "free shipping" or "free delivery" and "away from Prime's price, which leads some consumers to enroll without providing informed consent."¹⁸⁴ Specifically regarding the UPDP page, the FTC says "[t]he UPDP's orange button, which enrolls a consumer in Prime if clicked, is located toward the bottom right of the screen and often includes language referencing "free shipping" or a "free

¹⁸¹ See, e.g., Zeithaml, V. A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing*, 52, 3, 2–22 at pp. 3–4, 17–18 ("Quality can be defined broadly as superiority or excellence. By extension, perceived quality can be defined as the consumer's judgment about a product's overall excellence or superiority. Perceived quality is [...] different from objective or actual quality;" "Though managers increasingly acknowledge the importance of quality, many continue to define and measure it from the company's perspective. Closing the gap between objective and perceived quality requires that the company view quality the way the consumer does;" "Consumers' perceptions of quality change over time as a result of added information, increased competition in a product category, and changing expectations. The dynamic nature of quality suggests that marketers must track perceptions over time and align product and promotion strategies with these changing views").

¹⁸² Amended Complaint, ¶ 231.b.

¹⁸³ Amended Complaint, ¶ 231.b.i.

¹⁸⁴ Amended Complaint, ¶ 231.b.i.

trial,”¹⁸⁵ and “[price and autorenewal] information is located in small print at the bottom of the page, along with a link to the Prime terms and conditions.”¹⁸⁶

100. The FTC also alleges that Amazon uses “sneaking” or “a design element that consists of hiding or disguising relevant information, or delaying its disclosure.”¹⁸⁷ In particular, the FTC alleges that Amazon employs “sneaking” by “failing to clearly and conspicuously disclose Prime’s terms and conditions during its enrollment checkout flow, including its price and auto-renew attribute.”¹⁸⁸ Particularly in the UPDP page, the FTC claims that Amazon “does not adequately disclose the price of the monthly auto-renewal feature of Prime.”¹⁸⁹

101. The design features that relate to the FTC’s allegations, per the Amended Complaint, are highlighted with a red box in Exhibit 6. The UPDP page contains text at the bottom of the screen that explains the terms and conditions should the consumer accept the free trial offer of Prime. These terms and conditions explain that, in the event the consumer decides to accept the free trial offer, they authorize Amazon to charge the consumer’s default payment or another payment method after the 30-day free trial period. It also specifies that the consumer is agreeing to the Amazon Prime Terms and Conditions (and provides a link to the full Terms and Conditions page that the consumer can choose to click). These terms and conditions specify that the offer will auto-renew at a price of \$12.99 per month plus taxes, and that the consumer can cancel at any time by visiting the “Your Account” page. This specific language about autorenewal policy, price, and information on how to cancel is inconsistent with the FTC’s allegations that the UPDP page “hides” or “disguises” relevant information about the offer.¹⁹⁰

¹⁸⁵ Amended Complaint, ¶ 39.

¹⁸⁶ Amended Complaint, ¶ 43.

¹⁸⁷ Amended Complaint, ¶ 231.e.

¹⁸⁸ Amended Complaint, ¶ 231.e.

¹⁸⁹ Amended Complaint, ¶ 43.

¹⁹⁰ Amended Complaint, ¶ 231.e.

Exhibit 6 Alleged “Interface Interference” and “Sneaking” on Universal Prime Decision Page

Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 18.

Note: Red box added for emphasis.

102. The FTC’s allegations that the UPDP page “direct[s] consumers’ attention … away from Prime’s price, which leads some consumers to enroll without providing informed consent,”¹⁹¹ are inconsistent with what is presented on the UPDP page. Importantly, the price of the Prime membership is shown on the UPDP page in bold font type, in the text with the details of the offer. The bold font type provides a contrast to the regular font type that is predominantly used in the rest of the page. Consumers interested in the free trial offer can read this information on the same page as the offer. Moreover, the price is explicitly stated for the consumer, including a

¹⁹¹ Amended Complaint, ¶ 231.b.i.

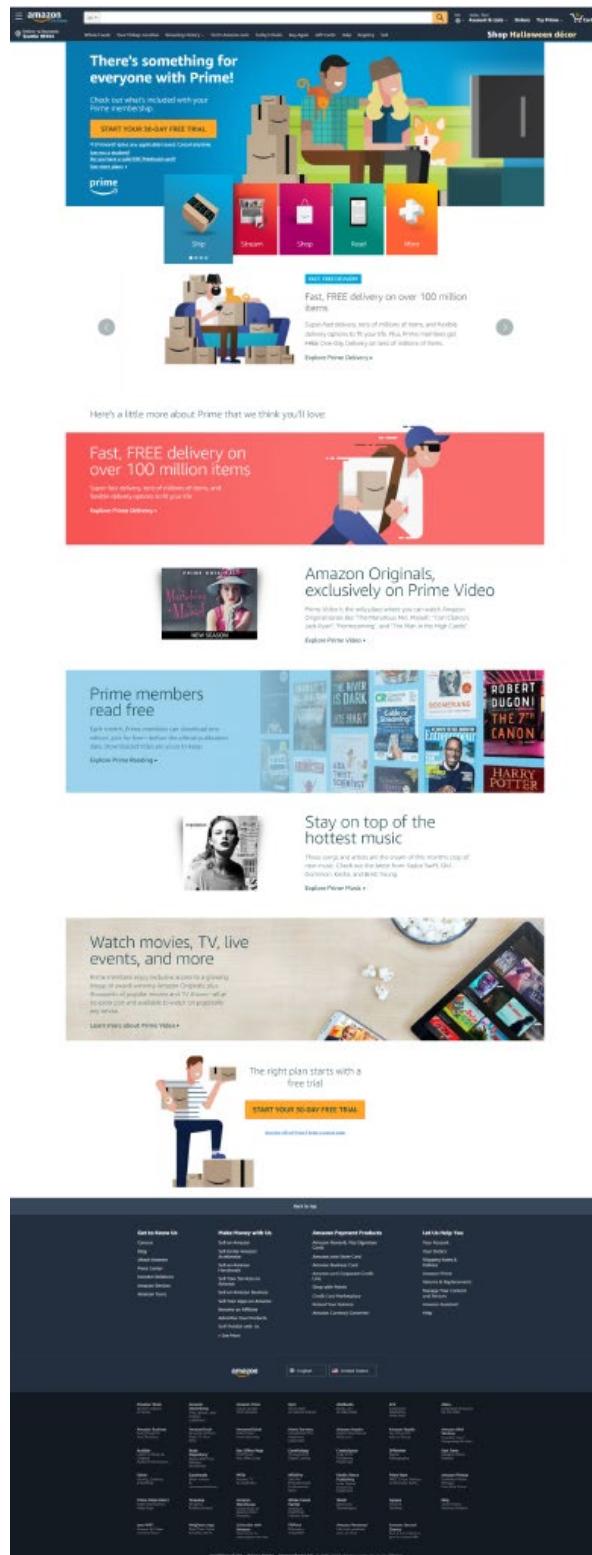
specific mention of possible additional taxes and the fact that the price of membership will apply on a recurring monthly basis at the end of the free trial period if the consumer does not cancel.

103. Furthermore, the FTC's definition of "interface interference" is broad and can apply to any instance where font size or coloring differs on the page. Moreover, the FTC's allegations that Amazon "uses repetition and color to direct consumers' attention" to "free shipping" or "free delivery"¹⁹² ignores the fact that repetition is a fundamental concept in marketing, with seminal studies on advertising repetition dating back to the 1960s studying the importance of advertising for consumer learning and recalls, showing the importance of repetition to increase persuasiveness and create a lasting impression on consumers.¹⁹³ In other words, the use of repetition that the FTC calls a "dark pattern" is a well-studied and legitimate marketing practice. In addition, free, fast shipping is a key feature of the Prime free trial offer and is relevant to the consumer at this point in the checkout process. Amazon's repeated presentation of the free shipping benefits of Prime is consistent with its advertising of Prime benefits on other parts of the website, such as Amazon.com/prime shown in Exhibit 7, as well as marketing practices used by other ecommerce websites, as I show below in Section IX.¹⁹⁴

¹⁹² Amended Complaint, ¶ 231.b.i.

¹⁹³ Krugman, H. E. (1965), "The Impact of Television Advertising: Learning Without Involvement," *Public Opinion Quarterly*, 29, 3, 349–356; Krugman, H. E. (1971), "Brain Wave Measures of Media Involvement," *Journal of Advertising Research*, 11, 1, 3–9; Campbell, M. C. and K. L. Keller (2003), "Brand Familiarity and Advertising Repetition Effects," *Journal of Consumer Research*, 30, 2, 292–304; Schmidt, S. and M. Eisend (2015), "Advertising Repetition: A Meta-Analysis on Effective Frequency in Advertising," *Journal of Advertising*, 44, 4, 415–428.

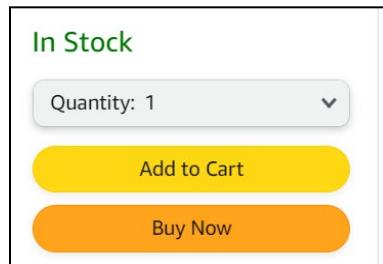
¹⁹⁴ See Section IX.A.2.a.(3).

Exhibit 7 Amazon.com/prime


Source: “/Prime Free Trial Desktop,” November 2019, AMZN_00046029.

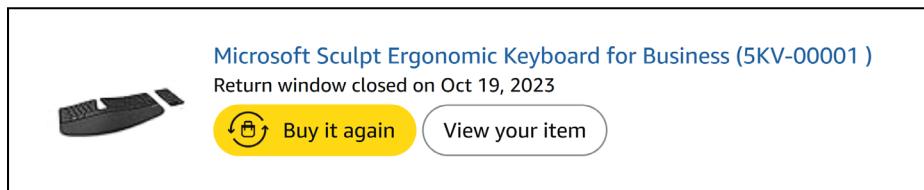
104. The FTC ignores how Amazon uses UI design elements and features on its website as a whole. The use of color on the UPDP page is generally consistent with Amazon's use of these elements on the rest of its website. Many consumers who shop on Amazon are likely to be familiar with UI design elements that are commonly shown on the website, including the use of orange and yellow buttons to indicate actions related to the purchase of products. For example, each product page on Amazon contains a yellow "Add to Cart" button and an orange "Buy Now" button. The page with Past Orders contains a yellow "Buy it again" button to facilitate the easy repurchase of products previously purchased. These UI design elements are shown in Exhibit 8 and Exhibit 9. As I discuss in Section VI, consumers' online experiences are shaped by any relevant prior knowledge they possess about the website, which include the overall visual design scheme.

Exhibit 8 Example of Interface Element on Amazon Product Page



Source: Amazon.com, accessed February 15, 2025.

Exhibit 9 Example of Interface Element on Amazon Orders Page



Source: Amazon.com, accessed February 15, 2025.

105. Moreover, the design element that the FTC complains about here (i.e., call-to-action features that have a consistent color scheme) is commonly used in the industry. As discussed in Section IX, 88% of the 48 paid digital membership/subscription programs I analyzed use a call-to-action feature to complete enrollment in a paid digital membership/subscription program (or a

free trial of the program) that has the same color scheme as other call-to-action features encountered by a consumer prior to completing enrollment.¹⁹⁵ This undermines the FTC’s conclusion that consumers would be “manipulate[d]” by such UI design elements.

d. FTC’s Claims regarding “Obstruction” and “Misdirection”

106. The FTC alleges that Amazon uses “obstruction,” which it defines in the Amended Complaint as “a design element that involves intentionally complicating a process through unnecessary steps to dissuade consumers from an action,” specifically by “making the option to decline enrollment difficult to locate.”¹⁹⁶ In particular, the FTC alleges the UPDP page “generally interrupts consumers’ online shopping experience by presenting them with a prominent button to enroll in Prime and a comparatively inconspicuous link to decline.”¹⁹⁷

107. The FTC also alleges that Amazon uses “misdirection,” which it defines in the Amended Complaint as “a design element that focuses a consumer’s attention on one thing to distract from another.”¹⁹⁸ In particular, the FTC alleges, “Amazon uses Misdirection in its Prime checkout enrollment flow by presenting asymmetric choices that make it easier to enroll in Prime than not. Additionally, certain versions of Amazon’s checkout enrollment flow offer consumers only a less prominent blue link to decline Prime.”¹⁹⁹ Specifically regarding the UPDP page, the FTC says “the contrast between an orange ‘double-stacked’ button to enroll in Prime and a blue link to decline prioritizes the enrollment option over the decline option and creates a visual imbalance.”²⁰⁰

108. The design features that relate to the FTC’s allegations, per the Amended Complaint, are highlighted with a red box in Exhibit 10. The UPDP page contains the options to either decline or accept a free trial offer to Prime. The consumer can decline the 30-day free trial offer by clicking the blue hyperlinked text that says “No thanks, I do not want FREE delivery.” Alternatively, the consumer can accept the 30-days free trial offer by clicking the orange button

¹⁹⁵ See Section IX.A.2.a.(7).

¹⁹⁶ Amended Complaint, ¶ 231.c.

¹⁹⁷ Amended Complaint, ¶ 38.

¹⁹⁸ Amended Complaint, ¶ 231.d.

¹⁹⁹ Amended Complaint, ¶ 231.d.i.

²⁰⁰ Amended Complaint, ¶ 42.

that includes the text, “Get FREE Same-Day Delivery,” sitting above a gray box that includes the text, “Enjoy Prime FREE for 30 days.”²⁰¹

Exhibit 10 Alleged “Obstruction” and “Misdirection” on Universal Prime Decision Page

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

No minimum order threshold for FREE One-Day Delivery

Your top Prime eligible item in cart:

Your Prime benefits include:

Delivery Speed	prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery	FREE
Two-Day Delivery	FREE

Save **\$7.52** on your Prime eligible items with FREE Same-Day Delivery on this order.

No thanks, I do not want FREE delivery Get FREE Same-Day Delivery
Enjoy Prime FREE for 30 days

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. Your [Amazon Prime membership continues until cancelled](#). If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting [Your Account](#) and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our [Help page](#) to learn more about placing an order.
[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 18.

Note: Red box added for emphasis.

109. The FTC claims the option to decline enrollment is “difficult to locate.”²⁰² However, the option to decline enrollment is positioned directly adjacent to the option to accept the offer. The FTC also alleges that the UPDP page “distract[s]” consumers’ attention away from the decline

²⁰¹ According to the Amended Complaint, the blue hyperlinked text reads “No thanks, I do not want fast, FREE delivery” or “No thanks, I do not want fast, free delivery,” and the orange button includes the text “Get FREE Two-Day Shipping.” *See Amended Complaint, ¶¶ 39–41. See also Amended Complaint, Attachments A–B.*

²⁰² Amended Complaint, ¶ 231.c.i.

option.²⁰³ However, the option to accept and decline the enrollment offer are positioned on the page in a way that is consistent with effective design principles. As I explain in Section VI, consumers typically look at areas of the screen where they expect to find the relevant information and call-to-action features.²⁰⁴

110. According to the Amended Complaint, the interface design feature to accept the free trial offer is displayed prominently as a button whereas the feature to decline the offer is “a comparatively inconspicuous link.”²⁰⁵ The FTC does not provide specifics on the visual standards it is using to determine conspicuousness. Regardless, contrary to the FTC’s claims regarding the presentation of “asymmetric choices” that make it easier to do something (e.g., enroll in or sign up) than not,²⁰⁶ this is a standard practice that helps consumers navigate pages with more ease and follows principles of effective UI design.²⁰⁷ Many consumers are likely familiar with choice options being presented with contrasting or visually different buttons through their experience across different websites that follow such standard UI design principles.

111. The FTC ignores that the visual differences for different (and in the case of UPDP page, the opposite) actions on the UPDP page are consistent with visual differences used for similar purposes on other pages on the Amazon website. As such, many consumers who have previously shopped on Amazon would likely be familiar with Amazon’s use of these UI design elements from their prior experiences navigating the website.²⁰⁸ For example, Exhibit 11 appears at the bottom of the Amazon homepage where Amazon invites consumers to sign into their Amazon accounts, which allows it to customize the homepage with personalized product recommendations. The call-to-action feature for signing in is presented as a yellow button

²⁰³ Amended Complaint, ¶ 231.d.i.

²⁰⁴ Moran and Liu (2018), p. 28 (“Users look in areas where they expect to find certain elements or information, based on previous experiences. They direct their attention to elements that stand out from the rest of page. In sometimes less than a second, a user can complete an initial assessment of a page, estimating the potential value they’ll glean from the information on the page.”).

²⁰⁵ Amended Complaint, ¶ 38.

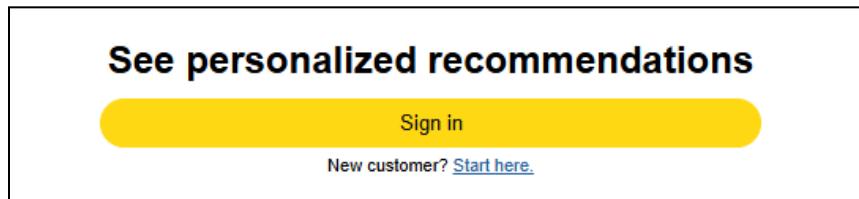
²⁰⁶ Amended Complaint, ¶ 231.d.

²⁰⁷ “5 Principles of Visual Design in UX,” *Nielsen Norman Group*, March 1, 2020, <https://www.nngroup.com/articles/principles-visual-design/> (“The principle of contrast: The juxtaposition of visually dissimilar elements in order to convey the fact that these elements are different (e.g., belong in different categories, have different functions, behave differently). In other words, contrast provides the eye with a noticeable difference (e.g., in size or color) between two objects (or between two sets of objects) in order to emphasize that they are distinct.”).

²⁰⁸ See discussion in Section VI regarding how consumers’ online experiences are shaped by any relevant prior knowledge they possess about a website, which can include its overall visual design scheme.

whereas the call-to-action feature that the consumer can click to create a new account is presented as a blue link that says “Start here.” Further, Amazon uses both yellow and blue call-to-action features repeatedly on its website.²⁰⁹ The repeated use of call-to-action features of different colors (e.g., yellow or blue), or “visual imbalances” per the FTC, such as the one presented in Exhibit 11 on the Amazon website would likely be familiar to many consumers.

Exhibit 11 Example of Login Screen Design on Amazon Homepage



Source: Amazon.com, accessed February 15, 2025.

112. As I discussed above, effective UI design practices that help consumers navigate pages with more ease include visual differences for multiple buttons with different purposes on the same page (e.g., different uses of color and shapes), and entities that have online presence regularly implement these design features.²¹⁰ For example, consider the FTC webpages in Exhibit 12 and Exhibit 13, below, which display overlays with design features that are very similar to the ones on the UPDP page that the FTC criticizes. Exhibit 12 shows that, as with the UPDP page, the call-to-action feature to accept (in this case an invitation to provide feedback to the FTC via a survey) is arguably more visually prominent than, and adjacent to, the call-to-action feature to decline.²¹¹ In particular, the call-to-action feature to accept is presented as a dark blue button that contrasts with the white background of the page, while the call-to-action

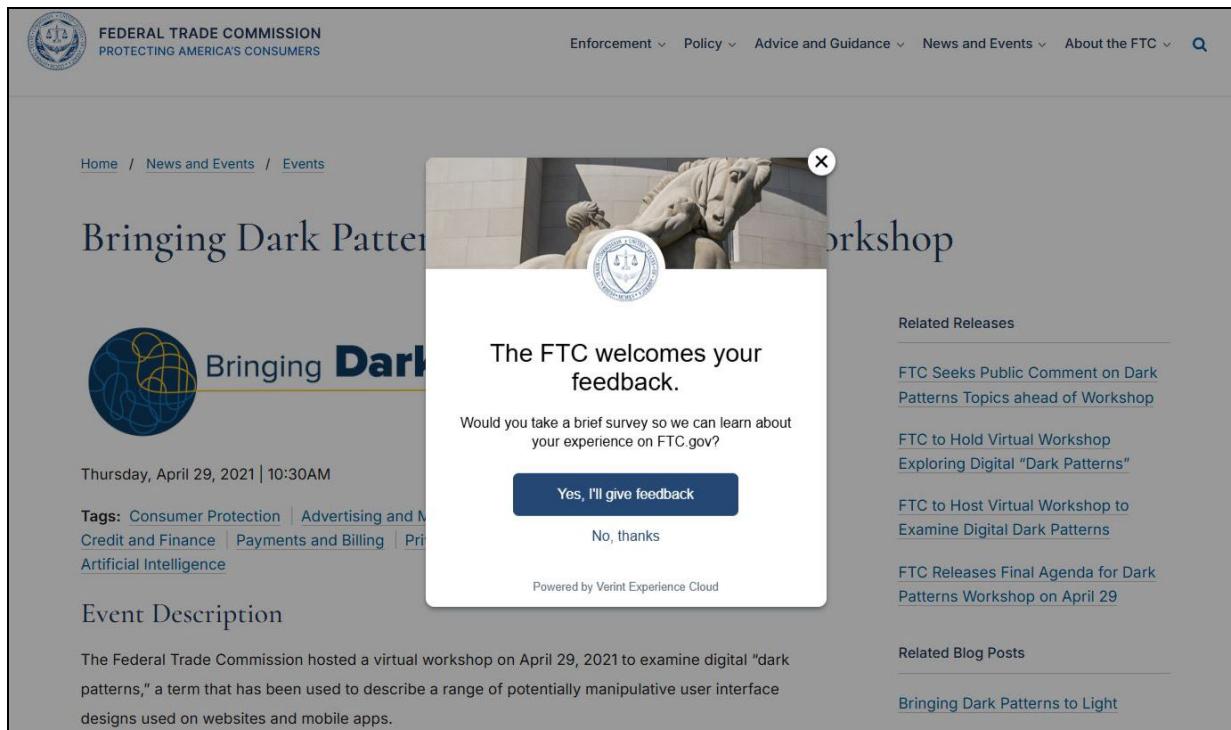
²⁰⁹ See Appendices C.10–C.13 for additional examples of Amazon webpages that include call-to-action features presented with yellow buttons and blue hyperlinks.

²¹⁰ “All Buttons,” *Google Material Design Guidelines 3*, <https://m3.material.io/components/all-buttons> (“Each screen should contain a single prominent button for the primary action. This high-emphasis button commands the most attention.... [f]or multiple actions, choose a higher-emphasis button for the more important action[.]”); “Buttons,” *Apple*, <https://developer.apple.com/design/human-interface-guidelines/buttons> (“Use style [...] to visually distinguish the preferred choice among multiple options. When you use buttons of the same size to offer two or more options, you signal that the options form a coherent set of choices. If you want to highlight the preferred or most likely option in a set, use a more prominent button style for that option and a less prominent style for the remaining ones”).

²¹¹ Users on the FTC website can also decline and close the interstitial by clicking on the “x” located on the upper left corner of the interstitial.

feature to decline is presented below that button in the form of a blue hyperlink that contrasts with the white background of the page. Similarly, Exhibit 13 shows that, as with the UPDP page, the call-to-action feature to accept is adjacent to the call-to-action feature to decline. In this case, the call-to-action feature to accept is again presented as a dark blue button, while the call-to-action feature to decline is shown below that button, this time in the form of a white button with a dark blue frame.

Exhibit 12 Call-to-Action Features on an Overlay on the FTC's Website



The screenshot shows a webpage from the Federal Trade Commission (FTC) with a survey overlay. The overlay is titled "The FTC welcomes your feedback." It asks, "Would you take a brief survey so we can learn about your experience on FTC.gov?" Two buttons are present: a dark blue button labeled "Yes, I'll give feedback" and a white button with a dark blue border labeled "No, thanks". The overlay is semi-transparent, showing the background image of the FTC building and the event details "Bringing Dark Patterns Light FTC Workshop" and "Thursday, April 29, 2021 | 10:30AM". The right side of the page features a sidebar with "Related Releases" and "Related Blog Posts".

Source: Screenshots collected by visiting <https://www.ftc.gov/news-events/events/2021/04/bringing-dark-patterns-light-ftc-workshop> as of February 15, 2025.

Note: The overlay may appear on other webpages through the FTC's website in addition to the one shown in the exhibit.

Exhibit 13 Call-to-Action Features on an Overlay on the FTC's Website

The screenshot shows the FTC's website with a dark blue header. The header includes the FTC logo and the text "FEDERAL TRADE COMMISSION" and "PROTECTING AMERICA'S CONSUMERS". A navigation bar with dropdown menus for "Enforcement", "Policy", "Advice and Guidance", "News and Events", and "About the FTC" is at the top right, along with a search icon. The main content area has a dark blue background with the word "Events" in white. On the left, a sidebar lists categories: "News and Events" (selected), "News", "Events" (highlighted in blue), "Legal Proceedings", "Open Meetings", "Weekly Events", "Features", "Topics", and "Data and Visualizations". The main content area displays a list of events, with the first item being "Seventeenth Annual Microeconomics". A white overlay box is centered on the page. It contains the FTC logo and the text "Help us improve FTC.gov" followed by "Would you be willing to answer a few questions about your experience?". It has two buttons: a dark blue "Provide Feedback" button and a white "No Thanks" button. In the top right corner of the overlay box is a small "X". To the right of the overlay, there is a link "Switch to calendar view >". Below the overlay, the text "Displaying 1 - 20 of 1617" and "Show: 20" are visible.

Source: Appendix F, Federal Trade Commission.

Note: The overlay may appear on other webpages through the FTC's website in addition to the one shown in the exhibit.

113. Section IX below presents additional examples of other websites that use different colors and/or sizes for the accept and decline options, taken from a variety of websites. The examples suggest that many online consumers are exposed to a variety of websites that use such visual differences to indicate different choices. This is because these visual differences facilitate consumers' navigational objectives, including the ability to quickly and easily identify different options on the page.

114. The FTC alleges that Amazon is using "obstruction" to "intentionally complicate a process through unnecessary steps."²¹² However, the FTC fails to explain why the UPDP page, which offers a 30-day free trial that can be either accepted or rejected in one click, complicates the shopping process. In fact, there is no difference in the number of steps required to accept or

²¹² Amended Complaint, ¶ 231.c.

decline the Prime free trial offer. Both accepting and declining the offer only require one click, with no additional steps subsequent to declining the offer.

115. Moreover, the FTC ignores that the UPDP page can benefit consumers who are interested in the offer during the checkout process. In other words, consumers uninterested in the offer can easily decline, while consumers who are interested may benefit from the offer being presented to them.

e. FTC's Claims regarding "Confirmshaming"

116. The FTC alleges that Amazon uses "confirmshaming," which it defines in the Amended Complaint as "a design element that uses emotive wording around the disfavored option to guilt consumers into selecting the favored option."²¹³ In particular, the FTC alleges that "the Prime checkout enrollment flow used "confirmshaming" by requiring consumers who sought to decline the offer of Prime to click a link stating "No thanks, I do not want fast, free delivery."²¹⁴

117. The design features that relate to the FTC's allegations, per the Amended Complaint, are highlighted with a red box in Exhibit 14, showing the option to decline the 30-day free trial offer of Prime.

²¹³ Amended Complaint, ¶ 231.f.

²¹⁴ Amended Complaint, ¶ 231.f.

Exhibit 14 Alleged “Confirmshaming” on Universal Prime Decision Page

Test, we're giving you a 30-day FREE trial of Prime

No minimum order threshold for FREE One-Day Delivery

Your top Prime eligible item in cart:

Your Prime benefits include:

Delivery Speed	prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery	FREE
Two-Day Delivery	FREE

Save \$7.52 on your Prime eligible items with FREE Same-Day Delivery on this order.

No thanks, I do not want FREE delivery

Get FREE Same Day Delivery

Enjoy Prime FREE for 30 days

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting [Your Account](#) and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our [Help](#) page to learn more about placing an order.

[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 18.

Note: Red box added for emphasis.

118. First, it is worth noting that the use of emotions is ubiquitous in standard marketing practices.²¹⁵ In fact, marketers employ various strategies to appeal to consumers’ feelings to actively engage consumers with a message or encourage them to take positive action towards a product or service.²¹⁶ For example, when Coca Cola advertisements portray families enjoying

²¹⁵ See, e.g., Bagozzi, R. P. et al. (1999), “The Role of Emotions in Marketing,” *Journal of the Academy of Marketing Science*, 27, 2, 184–206 at p. 202 (“Emotions are ubiquitous throughout marketing. They influence information processing, mediate responses to persuasive appeals, measure the effects of marketing stimuli, initiate goal setting, enact goal-directed behaviors, and serve as ends and measures of consumer welfare.”).

²¹⁶ Marketers do this because not all consumers engage in a meaningful way with marketing communications (e.g., consumers do not always pay attention to advertising) and/or process information conveyed in the advertising cognitively. Kotler, P. and K. Keller (2012), *Marketing Management*, 14th ed., Hoboken, NJ: Prentice Hall, pp. 163,

dinner time drinking Coca Cola, evoking feelings of happiness and togetherness, such ads could motivate consumers to purchase Coca Cola products based on the positive emotions prompted by the ad.²¹⁷ Similarly, when Procter & Gamble advertisements showcase the crucial role mothers play in the lives of Olympic athletes—emphasizing their sacrifices, dedication, and support—such ads can help build an emotional connection with its core audience.²¹⁸ This approach reinforces the brand’s image as one that values families and their well-being, fostering stronger brand loyalty.

119. Second, the FTC’s definition of “confirmshaming” is vague regarding the “emotive wording” that it alleges Amazon uses in the language in the option to decline (e.g., “No thanks, I do not want fast, free delivery”).²¹⁹ Specifically, there is no definition of “emotive wording” provided by the FTC or agreed upon by practitioners and researchers. To the extent that the FTC uses this term to refer to words and phrases that can evoke an emotional response, tools have been developed and applied by researchers to classify text into lexical categories by identifying keywords in communication. One such tool is Stanford University’s Empath, a dataset of words that is cited by hundreds of academic articles on topic analysis,²²⁰ which includes two categories for “emotive” keywords: one for positive emotion (happiness, enlighten, etc.), one for negative emotion (violent, kill, etc.).²²¹ Based on my review of the positive and negative categories in Empath, I found that neither of these two categories include any keywords that showed up in Amazon’s message “No thanks, I do not want fast, free delivery.”²²²

173–174 (“Consumer response is not all cognitive and rational; much may be emotional and invoke different kinds of feelings. A brand or product may make a consumer feel proud, excited, or confident. An ad may create feelings of amusement, disgust, or wonder.”; “Marketers use four techniques to try to convert a low-involvement product into one of higher involvement [...] Third, they might design advertising to trigger strong emotions related to personal values or ego defense, as when cereal makers began to advertise to adults the heart-healthy nature of cereals and the importance of living a long time to enjoy family life [...]”).

²¹⁷ See, for example, Coca Cola’s, “Real Magic through Family Bonding,” marketing campaign, <https://www.youtube.com/watch?v=CZtzzsPf7rY>, uploaded January 19, 2022.

²¹⁸ See, for example, P&G’s “Thank You, Mom” Campaign Ad: ‘Strong’ (Rio 2016 Olympics),” marketing campaign, <https://www.youtube.com/watch?v=rdQrwBVRzEg>, uploaded September 17, 2016.

²¹⁹ Amended Complaint, ¶ 231.f.

²²⁰ Fast, E. et al. (2016), “Empath: Understanding Topic Signals in Large-Scale Text,” *CHI ’16*, 4647–4657, p. 1 (“Empath draws connotations between words and phrases by deep learning a neural embedding across more than 1.8 billion words of modern fiction ... We show that Empath’s data-driven, human validated categories are highly correlated ($r=0.906$) with similar categories in LIWC.”).

²²¹ “empath-client/empath/data at master – Ejhfast/empath-client,” *Github*, <https://github.com/Ejhfast/empath-client/tree/master/empath/data>.

²²² There are 75 keywords in Empath for positive emotion. There are 94 keywords in Empath for negative emotion. See Workpaper 1 for details.

120. While the FTC claims that Amazon uses “emotive wording around the disfavored option,” the decline options emphasize the same benefits of fast free delivery offered by Prime.²²³ Free and fast delivery is the element emphasized in the UPDP page, main feature of the offer, as it appears both on top of the page and on the table of Prime benefits. Given the emphasis put by the offer on free fast delivery, the reference to this feature in both the accept and the decline options is consistent with the rest of the communication on the interface. In fact, the accept button refers to “FREE Two-Day Delivery” and the decline button refers to “fast, FREE delivery.”

121. Third, regarding the term “confirmshaming,” neither the FTC nor the academic literature provides a scientific methodology to identify “confirmshaming” messages.²²⁴ According to the Amended Complaint, the text “No thanks, I do not want fast, free delivery” would induce “guilt” in the consumer.²²⁵ The FTC does not explain why this statement would generate guilt (or other emotions such as shame) in consumers, and does not explain or consider whether and how this message would generate different responses compared to other statements that could be used as text for declining the offer, or even that this message would influence consumers to change their decision. Moreover, the FTC’s allegations are unclear and inconsistent about whether the message in the decline option is inducing “guilt,” “shame,” or both. The psychology literature recognizes that guilt and shame are two distinct emotions, and the FTC is unclear how purportedly inducing “guilt” in the consumer is an example of “confirmshaming.”²²⁶

²²³ Amended Complaint, ¶ 231.f.

²²⁴ As I discuss in Section VII.C, there is no scientific framework that can be applied consistently to identify a “dark pattern.” I am not aware of a scientific methodology to identify a case of “confirmshaming,” and the FTC Complaint does not reference any such methodology. *See, e.g.*, Amended Complaint, ¶ 231 f.

²²⁵ Amended Complaint, ¶ 231.f.

²²⁶ In their study on emotions, Han et al. (2014) define guilt as a negative emotion where an individual appraises negative outcomes to their specific actions (e.g., “I did a bad thing”), and contrast it with shame, a negative emotion experienced when individuals attribute negative outcomes to global shortcomings within themselves (e.g., “I am a bad person”). Similarly, Tangney et al. (2005) discuss the differences between guilt and shame, and indicate that people who feel guilt are more likely to empathize with others and attempt to make amends, whereas people who feel shame are more likely to hide from others, feel isolated, and feel disgusted with themselves. *See Han, D. et al. (2014) “Emotions Shape Decisions through Construal Level: The Case of Guilt and Shame,” Journal of Consumer Research, 41, 4, 1047–1064; Tangney, J. P. et al. (2005) “Shame, Guilt, and Embarrassment: Will the Real Emotion Please Stand Up?,” Psychological Inquiry, 16, 1, 44–48.*

f. FTC's Claims regarding "Context" around the UPDP Page

122. I understand that in the Court's May 28, 2024 Order on Amazon's Motion to Dismiss the FTC's Amended Complaint, the Court reviewed the FTC's allegations made in the Amended Complaint and in its Opposition to the Motion to Dismiss regarding the "context" of the checkout process. I also understand that the Court indicated that it could "not conclude that the disclosures of the price and auto-renewal feature in the UPDP page would be clear and conspicuous to any reasonable consumer given the context in which the disclosures were made along with the size, color, and location of the text disclosing the terms."²²⁷

123. The Court noted the following allegations made by the FTC:

- a. In its Opposition to the Motion to Dismiss, the FTC argued that the context in which Amazon presents Prime's terms (i.e., the online checkout process) "[made] it unlikely consumers [would] notice Amazon had enrolled them in a Prime free trial or that the Prime free trial automatically converted to a paid membership after 30 days."²²⁸ In particular, the FTC alleges in its Opposition that it is "unlikely consumers would look for, find, and understand the relevance of" Prime terms.²²⁹
- b. The FTC argues that the UPDP "page header does not tell consumers they have a choice to accept or reject a Prime free trial. Instead, in many cases [...] Amazon simply declares 'we're giving you a 30-day FREE Trial of Prime'—treating the trial as an automatic add-on to the consumer's product purchase."²³⁰
- c. In addition, the FTC alleges that "Amazon makes the problem worse by providing a single large orange button on the page, which the shopper might reasonably think is their only option for proceeding with their product purchase. Beyond that, the single large

²²⁷ Order Denying Defendants Amazon.com, Inc., et al.'s Motion to Dismiss, *Federal Trade Commission, v. Amazon.com, Inc., et al.*, United States District Court Western District of Washington at Seattle, Case No. 2:23-cv-0932-JHC, Docket No. 165 (May 28, 2024), p. 26.

²²⁸ Plaintiff Federal Trade Commission's Opposition to Defendants Amazon.com, Inc., et al.'s Motion to Dismiss Amended Complaint, *Federal Trade Commission, v. Amazon.com, Inc., et al.*, United States District Court Western District of Washington at Seattle, Case No. 2:23-cv-0932-JHC, Docket No. 125 (November 17, 2023) ("Opposition to Motion to Dismiss"), p. 6.

²²⁹ Opposition to Motion to Dismiss, pp. 4–5.

²³⁰ Opposition to Motion to Dismiss, p. 8.

orange button often reads ... ‘Get FREE Two-Day Delivery’ or similar language, again implying the button relates only to the shopper’s product purchase.”²³¹

d. The FTC also alleges that the “UPDP page therefore does not make clear the consumer is making any decision, much less a decision to enter a ‘continuing relationship’ with Amazon. Consumers merely trying to finish their product purchase would have no reason to read, notice, or even look for the small print Prime terms at the bottom of the page.”²³²

124. Furthermore, the FTC alleges in its Amended Complaint that Amazon enrolls the consumers in a free trial if they click the orange button on the UPDP page even if they abandon the cart and do not order merchandise.²³³

125. The FTC’s allegations about the context of the UPDP page are unsubstantiated based on a review of the UPDP page and the checkout flow. In fact, Amazon provides an option to decline the offer directly adjacent to the button to accept. Additionally, the UPDP page outlines in bold the autorenewal policy and cancellation policy of the Prime offer, as well as making references to a continual relationship (as opposed to a one-time transaction) with the Amazon Prime membership by saying “Enjoy Prime FREE for 30 days” right under the call-to-action button and stating “we’re giving you a 30-day FREE Trial of Prime” at the header of the page.²³⁴

126. The FTC’s allegations that Amazon enrolls the consumers in a free trial even if they abandon the cart do not take into account that the page states that consumers accept the free trial offer by clicking the positive call-to-action button, both through the multiple references relating to the 30-day free trial offer and through the language at the bottom of the page stating, “By signing up.” Nothing on the page states that sign-up is deferred until after the checkout process.

127. In addition, the FTC’s claims that consumers will not notice the terms of the Prime trial offer contradict the FTC’s own allegation that the UPDP page interrupts the checkout flow and

²³¹ Opposition to Motion to Dismiss, p. 8.

²³² Opposition to Motion to Dismiss, p. 9.

²³³ Amended Complaint, ¶ 40.

²³⁴ Furthermore, the majority of consumers are familiar with the fact that free trials auto-renew into paid memberships. In fact, according to the Free Trials Survey conducted by Prof. Wilcox in August 2024, 85% of U.S. adults who signed up for at least one free trial in the prior 12 months indicated that their most recent free trial did (or would, unless cancelled) auto-renew. See Wilcox Opening Report.

“forces” the consumer to take an action.²³⁵ If the UPDP page did indeed interrupt the checkout flow and requires consumers to choose between two options before proceeding, as the FTC claims in the Amended Complaint, then the consumer would have to stop and consider the offer on the page, which includes the option to decline the offer as well as information about the price of the offer, timing of the trial period, and the offer’s autorenewal and cancellation policies.²³⁶

128. The FTC’s allegations stating that consumers would not notice the terms of Prime enrollment in the context of the checkout process do not take into account consumers’ familiarity with checkout flows and their experiences with similar interfaces. As I explain above in Section VI and as discussed further in Section IX, free trial offers and cross-sells are commonly used in today’s online interfaces, and many consumers are likely to be familiar with these concepts when enrolling in paid digital subscription services. That is, their familiarity with similar interfaces informs the way in which they navigate and interact with flows such as the UPDP page.

2. Enrollment via Amazon’s Prime “SOSP” Flow

a. Overview of SOSP Flow

129. The FTC also focuses on three flows containing “non-interstitial upsells” that consumers could encounter when navigating through the product purchase process during the relevant period.²³⁷

130. The first of these, the Shipping Option Select Page (or “SOSP”) flow, is shown in Exhibit 15. I understand that the SOSP is shown after a consumer adds an item to their cart but before they reach the checkout page where they can place their order. The SOSP provides multiple delivery options for the consumers to choose from, one of which is the promotional free same-day delivery of the purchase with a 30-day free trial of Amazon Prime. If a consumer selects this delivery option for free same-day delivery with a free trial of Amazon Prime (on the shipping option selection page), the Amazon website then provides a page with details on the Prime membership offer, with information on benefits, autorenewal policy, price, and information on

²³⁵ Opposition to Motion to Dismiss, p. 9; Amended Complaint, ¶ 38.

²³⁶ Amended Complaint, ¶ 38.

²³⁷ Amended Complaint, ¶ 37.

how to cancel.²³⁸ If the consumer accepts the offer, they are immediately enrolled in the free trial of Amazon Prime.²³⁹ However, if a consumer selects the free delivery option but later in the checkout flow they decline the offer, they are not enrolled.²⁴⁰ Assuming that the consumer enrolls and does not subsequently cancel their Amazon Prime membership during the free trial period, the membership is automatically renewed at the end of the free trial, and a monthly fee is charged using one of the payment methods saved to the consumer’s Amazon account.²⁴¹

131. I understand that Amazon discontinued the SOSP flow by October 2022, according to the Amended Complaint.²⁴²

132. In the beginning of the SOSP flow, the consumer adds the product they wish to purchase to their cart (Screen 1 in Exhibit 15), reviews the product added to the cart (Screen 2 in Exhibit 15), and enters their billing address (Screen 3 in Exhibit 15). Afterwards, the consumer reaches the SOSP page and selects a delivery option from a menu (Screen 4 in Exhibit 15). The delivery options include the promotional offer for same-day delivery with a 30-day free trial of Prime membership, presented for the first time during the checkout flow.²⁴³ The consumer can select the offer by clicking on the Same-Day Delivery option associated with the free trial offer. The offer on the SOSP page contains prominent information, twice on this page, indicating that the Same-Day Delivery is offered with Prime free trial. First, under the “Today” option, the text indicates that the consumer can receive “FREE Same-Day Delivery with a free trial of Amazon Prime.” Second, above the “Today” option, a prominent orange banner indicates that the

²³⁸ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 11 (“For those customers who have selected a Prime shipping option, Amazon next provides a page detailing the key terms of the Prime membership offer. Amazon provides customers with all of the material terms of Prime membership on one page.”).

²³⁹ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 12 (“After they are presented with this information, customers must choose ‘Start your Prime FREE Trial’ to complete enrollment in Prime.”).

²⁴⁰ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 12 (“If the customer would prefer not to enroll in Prime, the customer can easily select the clearly labeled ‘No Thanks’ button instead.”).

²⁴¹ Amended Complaint, ¶¶ 50–52.

²⁴² Amended Complaint, ¶ 53. *See also* Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, p. 37 (“SOSP was deprecated on April 27, 2022.”).

²⁴³ The Amended Complaint alleges that “[t]he SOSP shipping options page preselected the first option—‘FREE Same-Day Delivery with a free trial of Amazon Prime’—which would enroll the consumer in Prime.” *See* Amended Complaint, ¶ 48. Instead, according to the CID Response, this is not the case because “the shipping speed option defaults to a non-Prime shipping option.” *See* FTC Matter No. 2123050, Amazon’s CID Response to Follow-up Requests, August 6, 2021, p. 3. *See also* Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, p. 21 (“Amazon never pre-selects an option that will sign a customer up for Prime.”).

consumer was offered “a 30-day FREE trial of Prime.” Consumers who select the free trial offer on the SOSP page are not automatically enrolled in Prime.²⁴⁴

133. After selecting a delivery option, the consumer moves on to select a payment method (Screen 5 in Exhibit 15). After the payment method, the consumer who selected the free same-day delivery with a free trial of Amazon Prime is shown a version of the UPDP page (Screen 6 in Exhibit 15). This version of the UPDP page contains the terms and conditions for the Prime free trial, with information on benefits, autorenewal policy, price, and information on how to cancel. This page is also the point of enrollment for Prime for the SOSP enrollment flow, as consumers enroll immediately to Prime when they click the “Start your Prime FREE trial” button.²⁴⁵ In the final step of the checkout flow, the consumer reviews the details of their order (Screen 7 of Exhibit 15). If the consumer selected the Prime free trial offer during the flow, the page also displays a confirmation message about their enrollment. Consumers who enroll also receive a welcome email that confirms their enrollment into the free trial for Prime membership.²⁴⁶

²⁴⁴ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, pp. 11–12 (“For those customers who have selected a Prime shipping option, Amazon next provides a page detailing the key terms of the Prime membership offer. Amazon provides customers with all of the material terms of Prime membership on one page. After they are presented with this information, customers must choose ‘Start your Prime FREE Trial’ to complete enrollment in Prime. If the customer would prefer not to enroll in Prime, the customer can easily select the clearly labeled ‘No Thanks’ button instead.”).

²⁴⁵ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 12 (“After they are presented with this information, customers must choose ‘Start your Prime FREE Trial’ to complete enrollment in Prime. If the customer would prefer not to enroll in Prime, the customer can easily select the clearly labeled ‘No Thanks’ button instead.”); “Prime Offers in Checkout Re-Imagined Mini PR & FAQ,” May 27, 2020, AMZN_00040706–28 at 17 (showing Prime upsells in checkout flow); Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, p. 16 (“If after reviewing these terms, the customer preferred not to enroll in Prime, the customer could select the clearly labeled ‘No Thanks’ button”).

²⁴⁶ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 2 (“[T]o confirm for all new Prime members that they have joined, Amazon displays a membership confirmation screen and sends a welcome email that again confirms the customer’s enrollment in a new Prime membership.”).

Exhibit 15 SOSP Flow

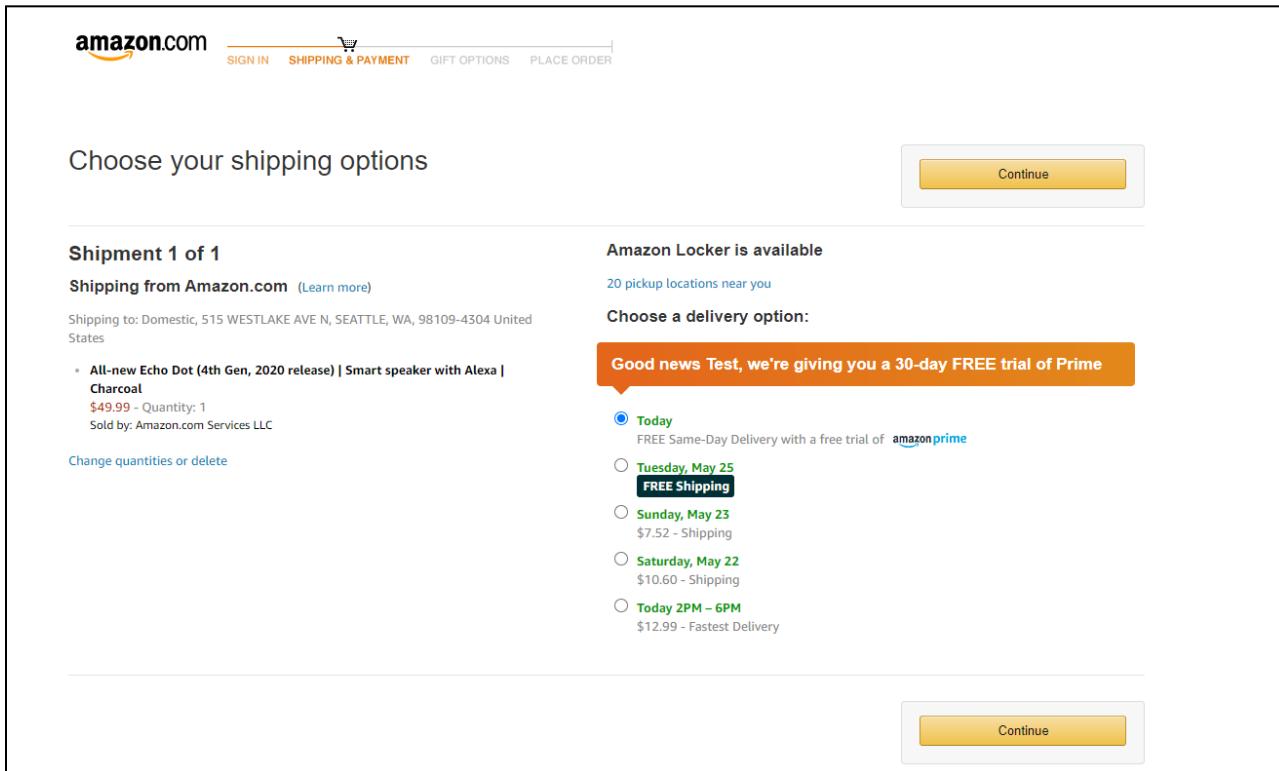
Source: Adapted from Amended Complaint, Attachment G.

b. FTC's Claims regarding Screen 4 of the SOSP Flow

134. The FTC alleges that, “[t]he [SOSP] upsell [sic] promised, for example, ‘FREE Same-Day Delivery’ and a ‘30-day FREE trial of Prime,’ but failed to disclose Prime’s price or the fact that the subscription service would renew automatically. The SOSP provided only a belated,

inconspicuous disclosure of the terms of Prime membership.”²⁴⁷ The screenshot in Exhibit 16 shows a version of screen 4 from the SOSP flow where the Prime shipping option is selected.

Exhibit 16 SOSP Flow – Screen 4²⁴⁸



Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 9.

135. While the FTC argues that the SOSP “failed to disclose Prime’s price or the fact that the subscription service would renew automatically,” this information is available to consumers within the SOSP flow by the point they make the decision to (or not to) enroll in a free trial of Prime.²⁴⁹ Specifically, Screen 6 in the SOSP flow (shown in Exhibit 17 below) contains a version of the UPDP page, which is the juncture in the flow where a consumer determines if they

²⁴⁷ Amended Complaint, ¶ 47.

²⁴⁸ The screenshot in Exhibit 16 shows a version of the SOSP flow where the Prime shipping option is selected. This is for illustrative purposes only in this exhibit. According to the CID Response, “the shipping speed option defaults to a non-Prime shipping option.” See FTC Matter No. 2123050, Amazon’s CID Response to Follow-up Requests, August 6, 2021, p. 3. See also Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, p. 21 (“Amazon never pre-selects an option that will sign a customer up for Prime.”).

²⁴⁹ Amended Complaint, ¶ 47.

will accept or decline the free trial offer for Prime membership provided on that page.²⁵⁰ The UPDP page contains information on automatic conversion of the trial to a paid membership (if not cancelled during the trial period), recurring monthly price of Prime, and how to cancel Prime membership.

136. Furthermore, as discussed in Section VIII.B.1.b, the FTC does not take into account that many consumers are likely familiar with cross-sells during checkout flows, and that some consumers benefit from evaluating the Prime offer information during the checkout process. As discussed in that section, cross-sells are a legitimate, commonly used marketing practice, including across online shopping contexts. Consumers navigating the checkout flow might find the Prime offer compelling and decide to enroll into the membership program because of the information presented during the checkout process while they are evaluating shipping options. For example, the SOSP allows consumers to compare alternative shipping options for the current order and informs them about savings that could be beneficial to customers who are evaluating shipping options. Moreover, as discussed in Section VI.B, the FTC does not take into account that the majority of consumers are familiar with the concept of free trial offers, including that free trial memberships often automatically convert to paid memberships after the free trial period if not canceled.

c. FTC's Claims regarding Screen 6 of the SOSP Flow

137. The FTC alleges that, “[t]he options [on the UPDP page of the SOSP flow] were visually imbalanced, with the sign-up option being larger and a brighter color. The page top stated, in large font, ‘we’re giving you a 30-day FREE trial of Prime.’ Beneath that text, in smaller font, read ‘After your FREE trial, Prime is just \$12.99/month.’ At the very bottom, in the middle of a block of text in small font, was the statement ‘Your Amazon Prime membership continues until

²⁵⁰ FTC Matter No. 2123050, Amazon's Third CID Response, May 24, 2021, pp. 11–12 (“For those customers who have selected a Prime shipping option, Amazon next provides a page detailing the key terms of the Prime membership offer. Amazon provides customers with all of the material terms of Prime membership on one page ... After they are presented with this information, customers must choose ‘Start your Prime FREE Trial’ to complete enrollment in Prime. If the customer would prefer not to enroll in Prime, the customer can easily select the clearly labeled ‘No Thanks’ button instead.”); Amazon's May 3, 2024 Objections and Responses to the FTC's First Set of Interrogatories, p. 16 (“If after reviewing these terms, the customer preferred not to enroll in Prime, the customer could select the clearly labeled ‘No Thanks’ button”).

cancelled ...”²⁵¹ Elsewhere in the Amended Complaint, the FTC alleges that the visual imbalance “prioritizes” the enrollment option.²⁵²

Exhibit 17 SOSP Flow – Screen 6

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

After your FREE trial, Prime is just \$12.99/month

Your top Prime eligible item in cart:

Your Prime benefits include:

Prime Benefits
Fast, FREE delivery on Prime eligible items
Prime Music
Prime Video

prime

Included

Included

Included

Enjoy FREE delivery, as fast as today on your Prime eligible items.

Use my gift card balance, when available, to pay for Prime.

No Thanks

Start your Prime FREE trial

Don't worry, you can cancel anytime.

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. **Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings.** For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our Help page to learn more about placing an order.

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Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 11.

138. The FTC ignores that the price of the Prime membership is shown on the UPDP page, which is part of the SOSP flow, in bold font type, in the text with the details of the offer. The bold font type provides a contrast to the regular font type that is predominantly used in the rest of

²⁵¹ Amended Complaint, ¶ 50.

²⁵² Amended Complaint, ¶ 42.

the page. Consumers interested in the free trial offer can read this information on the same page as the offer. Moreover, the price is explicitly stated for the consumer, including a specific mention of possible additional taxes and the fact that the price of membership will apply on a recurring monthly basis at the end of the free trial period if the consumer does not cancel.

139. The FTC also ignores how Amazon uses UI design elements and features on its website as a whole. As I previously discussed, the use of color on the UPDP page is generally consistent with Amazon's use of these elements on the rest of its website. Many consumers who shop on Amazon are likely familiar with UI design elements that are commonly shown on the website, including the use of yellow or orange buttons to indicate actions related to the purchase of products. For example, each product page on Amazon contains a yellow "Add to Cart" button and the page with Past Orders contains a yellow "Buy it again" button to facilitate the easy repurchase of products previously purchased.²⁵³

140. The FTC claims the option to accept and decline enrollment are "visually imbalanced,"²⁵⁴ but the FTC does not consider that, as discussed in Section VIII.B.1.d, using visual differences (e.g., using different colors and shapes) for multiple buttons with different purposes on the same page is a standard practice that helps consumers navigate pages with more ease and follows principles of effective UI design.²⁵⁵

d. FTC's Claims regarding Screen 7 of the SOSP Flow

141. The Amended Complaint indicates that the review order page "did not disclose Prime's price, nor did it disclose its monthly auto-renewal."²⁵⁶ The FTC claims do not consider that the SOSP flow shows autorenewal policy, price, and information on how to cancel at the point of enrollment. This information is displayed on Screen 6 of the SOSP flow (shown in Exhibit 17). After completing the enrollment, Amazon also shows a confirmation message about the

²⁵³ See Exhibit 8 and Exhibit 9 in Section VIII.B.1.c.

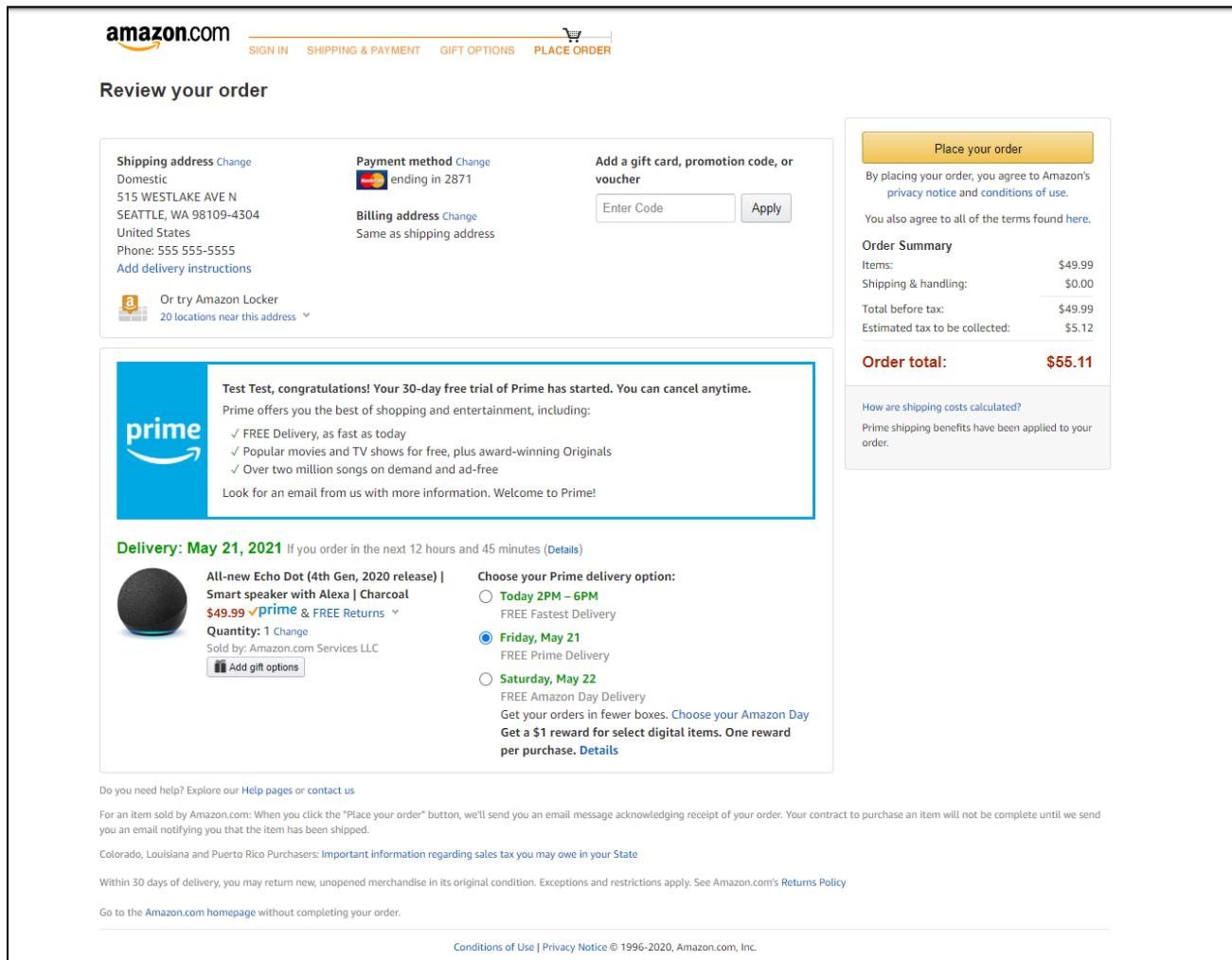
²⁵⁴ Amended Complaint, ¶ 50.

²⁵⁵ See, e.g., "5 Principles of Visual Design in UX," *Nielsen Norman Group*, March 1, 2020, <https://www.nngroup.com/articles/principles-visual-design/> ("The principle of contrast: The juxtaposition of visually dissimilar elements in order to convey the fact that these elements are different (e.g., belong in different categories, have different functions, behave differently). In other words, contrast provides the eye with a noticeable difference (e.g., in size or color) between two objects (or between two sets of objects) in order to emphasize that they are distinct.").

²⁵⁶ Amended Complaint, ¶ 52.

enrollment on the review order page, and sends the consumer a welcome email with the confirmation of the enrollment and the details on how to manage the Prime membership (shown in Exhibit 18).²⁵⁷

Exhibit 18 SOSP Flow – Screen 7



The screenshot shows the 'Review your order' page on Amazon. At the top, there are tabs for 'SIGN IN', 'SHIPPING & PAYMENT', 'GIFT OPTIONS', and 'PLACE ORDER'. The 'PLACE ORDER' button is highlighted in yellow. Below the tabs, the page title 'Review your order' is displayed. The main content area is divided into several sections:

- Shipping address:** Domestic, 515 WESTLAKE AVE N, SEATTLE, WA 98109-4304, United States. Phone: 555 555-5555. Options to 'Change' or 'Add delivery instructions'.
- Payment method:** Change, ending in 2871. Options to 'Change' or 'Add a gift card, promotion code, or voucher'.
- Billing address:** Same as shipping address.
- Gift card:** Enter Code and Apply button.
- Amazon Locker:** Or try Amazon Locker, 20 locations near this address.
- Prime Trial Confirmation:** A box with the Prime logo and text: 'Test Test, congratulations! Your 30-day free trial of Prime has started. You can cancel anytime. Prime offers you the best of shopping and entertainment, including: ✓ FREE Delivery, as fast as today ✓ Popular movies and TV shows for free, plus award-winning Originals ✓ Over two million songs on demand and ad-free'. It also says 'Look for an email from us with more information. Welcome to Prime!'
- Delivery:** May 21, 2021. If you order in the next 12 hours and 45 minutes. Options to 'Details'.
- Product:** All-new Echo Dot (4th Gen, 2020 release) | Smart speaker with Alexa | Charcoal. \$49.99. ✓ prime & FREE Returns. Quantity: 1 Change. Sold by: Amazon.com Services LLC. Add gift options.
- Delivery Options:**
 - Choose your Prime delivery option:
 - Today 2PM – 6PM: FREE Fastest Delivery
 - Friday, May 21: FREE Prime Delivery
 - Saturday, May 22: FREE Amazon Day Delivery
 - Get your orders in fewer boxes. Choose your Amazon Day. Get a \$1 reward for select digital items. One reward per purchase. Details.
- Order Summary:**

Items:	\$49.99
Shipping & handling:	\$0.00
Total before tax:	\$49.99
Estimated tax to be collected:	\$5.12
Order total:	\$55.11
- Shipping Costs:** How are shipping costs calculated? Prime shipping benefits have been applied to your order.

At the bottom, there are links for 'Help pages' and 'Contact us', and a note about email confirmation. The page footer includes 'Conditions of Use | Privacy Notice © 1996-2020, Amazon.com, Inc.'

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 12.

²⁵⁷ FTC Matter No. 2123050, Amazon's Third CID Response, May 24, 2021, p. 2 ("Additionally, to confirm for all new Prime members that they have joined, Amazon displays a membership confirmation screen and sends a welcome email that again confirms the customer's enrollment in a new Prime membership.").

e. FTC's Claims regarding "Context" of the SOSP Flow

142. I understand that in the FTC's Opposition to the Motion to Dismiss, the FTC argued that the context in which Amazon presents Prime's terms "makes it unlikely consumers will notice them."²⁵⁸ With respect to the SOSP flow, I also understand that the FTC only alleges that the SOSP page "allows consumers to select a 'FREE trial of Prime' without any disclosure of Prime's auto-renewal or price."²⁵⁹

143. The FTC's allegations are unsubstantiated based on my review of the SOSP flow. The FTC does not consider that the UPDP page in the SOSP flow, the page where consumers decide whether to enroll (regardless of their selection on the SOSP page), contains information about membership's price, autorenewal, and cancellation policy.²⁶⁰ Furthermore, the FTC does not consider that the decline option is presented next to the accept option, and that many online consumers are likely familiar with cross-sells and offers that have two options—to accept or reject—such as the offer presented on this page. Here, those two options are presented next to each other.

3. Enrollment via Amazon's Prime "SPC" Flow

a. Overview of SPC Flow

144. The next flow discussed in the Amended Complaint is the Single Page Checkout (or "SPC") flow. The SPC, which I understand is shown in the checkout page where consumers can place their order, contains a 30-day free trial offer of Amazon Prime. If a consumer selects the free trial offer, the offer is added to the cart and the webpage is updated with information on autorenewal policy, price, and information on how to cancel. If a consumer does not remove the offer from the cart, and completes the order, they are immediately enrolled in the free trial of Amazon Prime. Assuming that the consumer does not subsequently cancel their Amazon Prime membership during the free trial period, the membership is automatically renewed at the end of

²⁵⁸ Opposition to Motion to Dismiss, p. 5.

²⁵⁹ Opposition to Motion to Dismiss, p. 11, footnote 7.

²⁶⁰ FTC Matter No. 2123050, Amazon's Third CID Response, May 24, 2021, pp. 11–12.

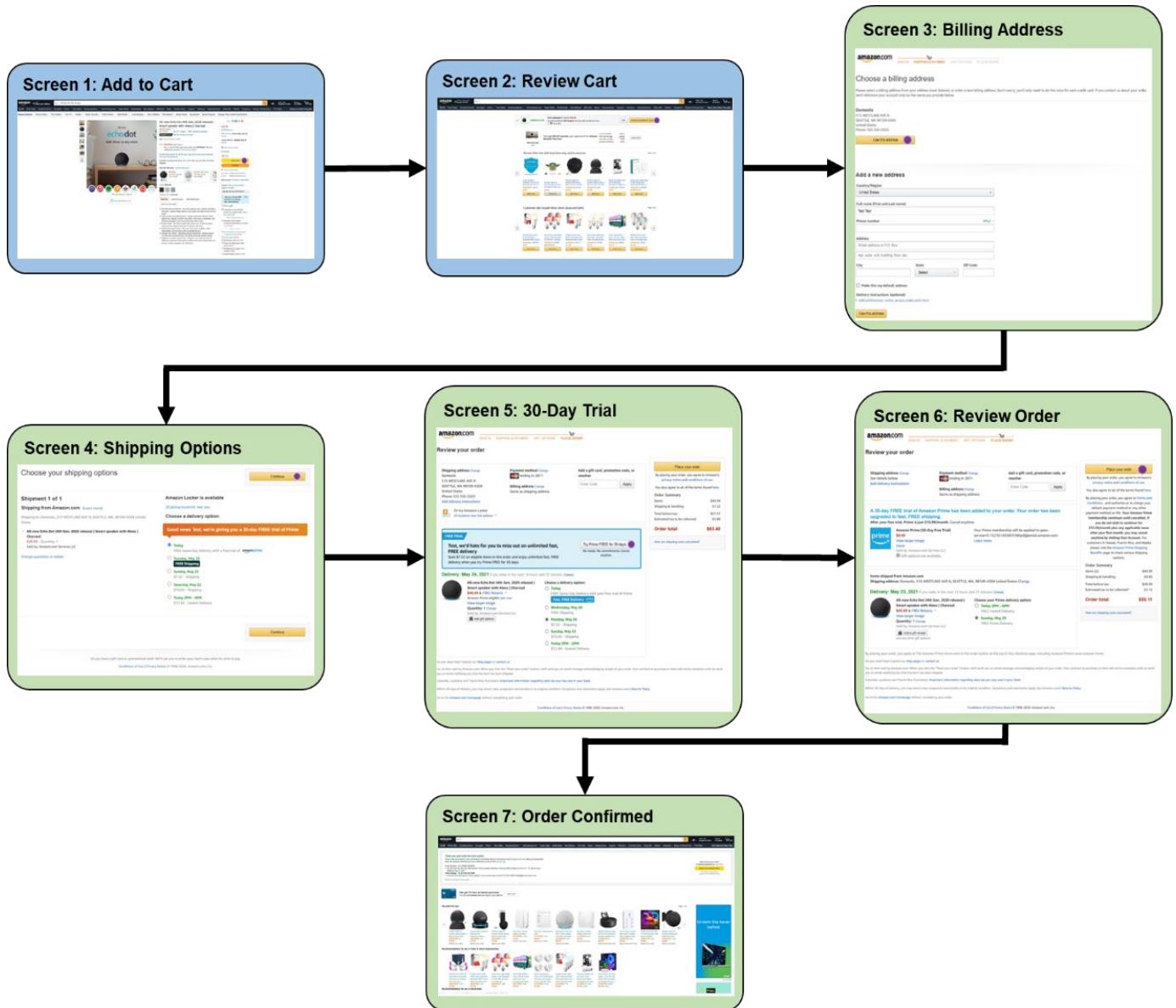
the free trial, and a monthly fee is charged using one of the payment methods saved to the consumer's Amazon account.²⁶¹

145. The SPC flow can be seen in Exhibit 19. In the beginning of the flow, the consumer adds the product they wish to purchase to their cart (Screen 1 in Exhibit 19), reviews the product added to the cart (Screen 2 in Exhibit 19), and enters their billing address (Screen 3 in Exhibit 19). Afterwards, the consumer selects a delivery option from a menu (Screen 4 in Exhibit 19). The delivery options include the offer of a 30-day free trial of Prime, presented here for the first time during the checkout flow, and the consumer can select the offer by selecting the Same-Day Delivery option that features the Amazon Prime logo and the orange banner communicating the free trial offer. After selecting a delivery option, the consumer moves on to the next screen, the SPC page, where they can view a summary of their order details, select a payment method, and change the delivery options (Screen 5 in Exhibit 19). In some cases, before reaching the SPC page, consumers can also be presented with the UPDP page with a 30-day free trial offer to Amazon Prime.²⁶² On the SPC page, an offer for a 30-day free trial of Prime is illustrated by a blue banner with details about the benefits of Prime, as well as a button to add the Prime trial to the cart. If the consumer accepts the offer, the banner text switches to indicate that the Prime trial offer has been added to the consumer's cart (Screen 6 in Exhibit 19). The updated banner includes details about Prime membership's price, autorenewal, cancellation policy, and has a button to remove the membership from the cart. The updated page, with the Prime membership added to the cart, is the point of enrollment for Prime for the SPC enrollment flow, as consumers enroll into Prime when they click the "Place your order" button. Once the consumer places their order, they move on to the last screen in the flow where they are shown an order confirmation (Screen 7 in Exhibit 19). The order confirmation page contains a list of the purchased products. If the consumer enrolled into Prime, the confirmation page lists Prime free trial with the purchased products.

²⁶¹ Amended Complaint, ¶¶ 54–56, 61.

²⁶² "Prime Offers in Checkout Re-Imagined Mini PR & FAQ," May 27, 2020, AMZN_00040706–28 at 17 ("Prime Upsells In Checkout Flow" showing that consumers can be presented the SOSP, UPDP, and SPC during the checkout flow).

Exhibit 19 SPC Flow



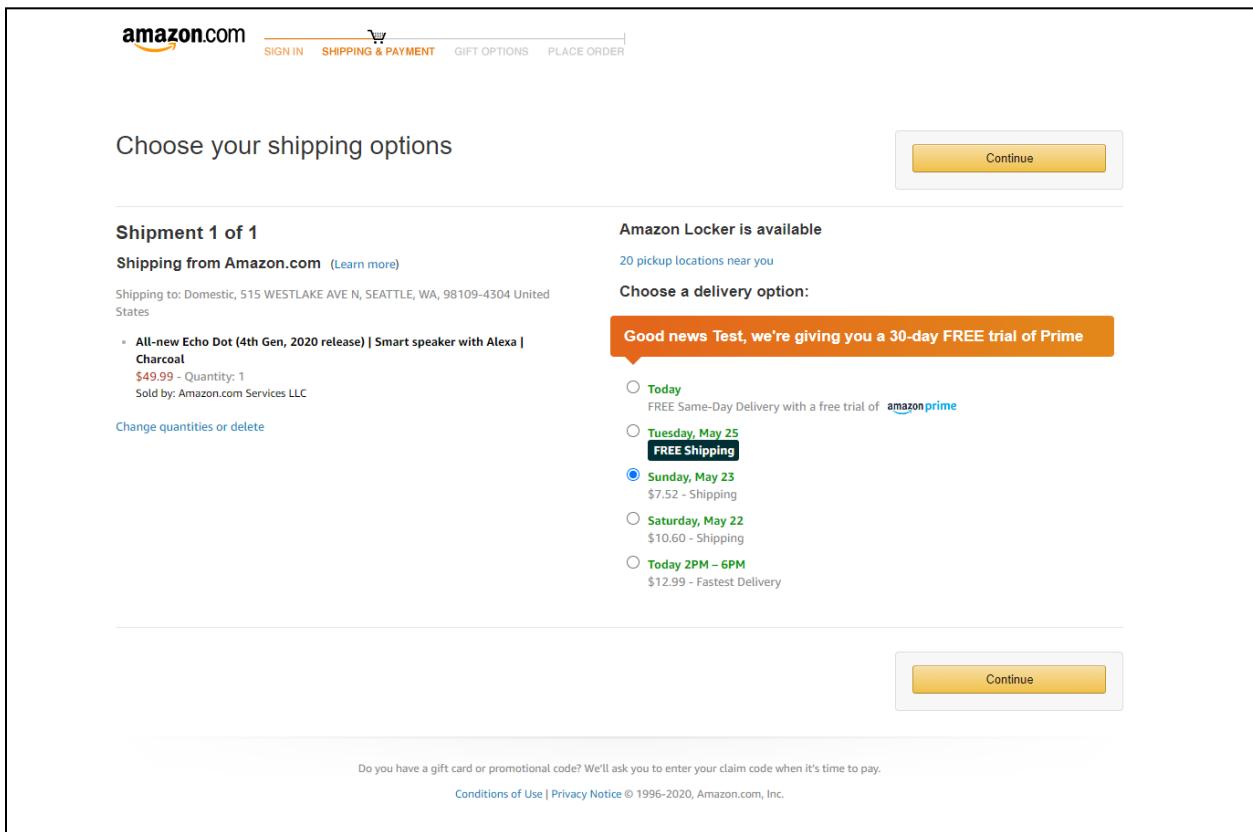
Source: Adapted from Amended Complaint, Attachment H.

b. FTC's Claims regarding Screen 4 of the SPC Flow

146. The FTC alleges that, “[l]ike in the SOSP version, the SPC shipping options page emphasized the first option—‘FREE Same-Day Delivery with a free trial of Amazon Prime.’ ... The SPC also displayed an orange banner above the shipping options, which stated ‘Good news [name], we’re giving you a 30-day FREE trial of Prime.’ The page did not disclose Prime’s

price, nor did it disclose the monthly auto-renewal.”²⁶³ The screenshot in Exhibit 20 shows a version of screen 4 of the SPC flow where the Prime shipping option is not selected.

Exhibit 20 SPC Flow – Screen 4



Source: “Prime Free Trial Signup CX,” May 23, 2021, AMZN_00003614 at slide 24.

147. As I described above in the context of the SOSP page in the SOSP flow, many consumers are likely familiar with cross-sells offers during checkout flows, the offer presents benefits for consumers, and consumers who select the offer would encounter price and autorenewal information before enrolling in Prime.

148. The FTC does not take into account that not only many consumers are likely familiar with cross-sells, but that cross-sells are a legitimate marketing practice commonly used in both online and offline shopping contexts. Consumers navigating the checkout flow might find the

²⁶³ Amended Complaint, ¶ 56.

Prime offer compelling and decide to enroll into the membership program because of the information presented during the checkout process while they are evaluating shipping options.

149. FTC's allegations that the SOSP page "did not disclose Prime's price, nor did it disclose the monthly auto-renewal" do not consider that the information is shown before consumers enroll in Prime, because the SOSP page introduces the offer, but it does not enroll participants in Prime.²⁶⁴ In fact, as described in the SOSP flow, consumers who select the Prime offer on this page (Screen 4 in Exhibit 19, corresponding to Screen 4 of Exhibit 15) would move on in the flow and encounter a version of the UPDP page (Screen 6 of Exhibit 15) that contains details on price, autorenewal, and cancellation policy. A consumer is only enrolled in the free trial if they accept the free trial offer on the UPDP page.²⁶⁵

c. FTC's Claims Regarding Screen 5 of the SPC Flow

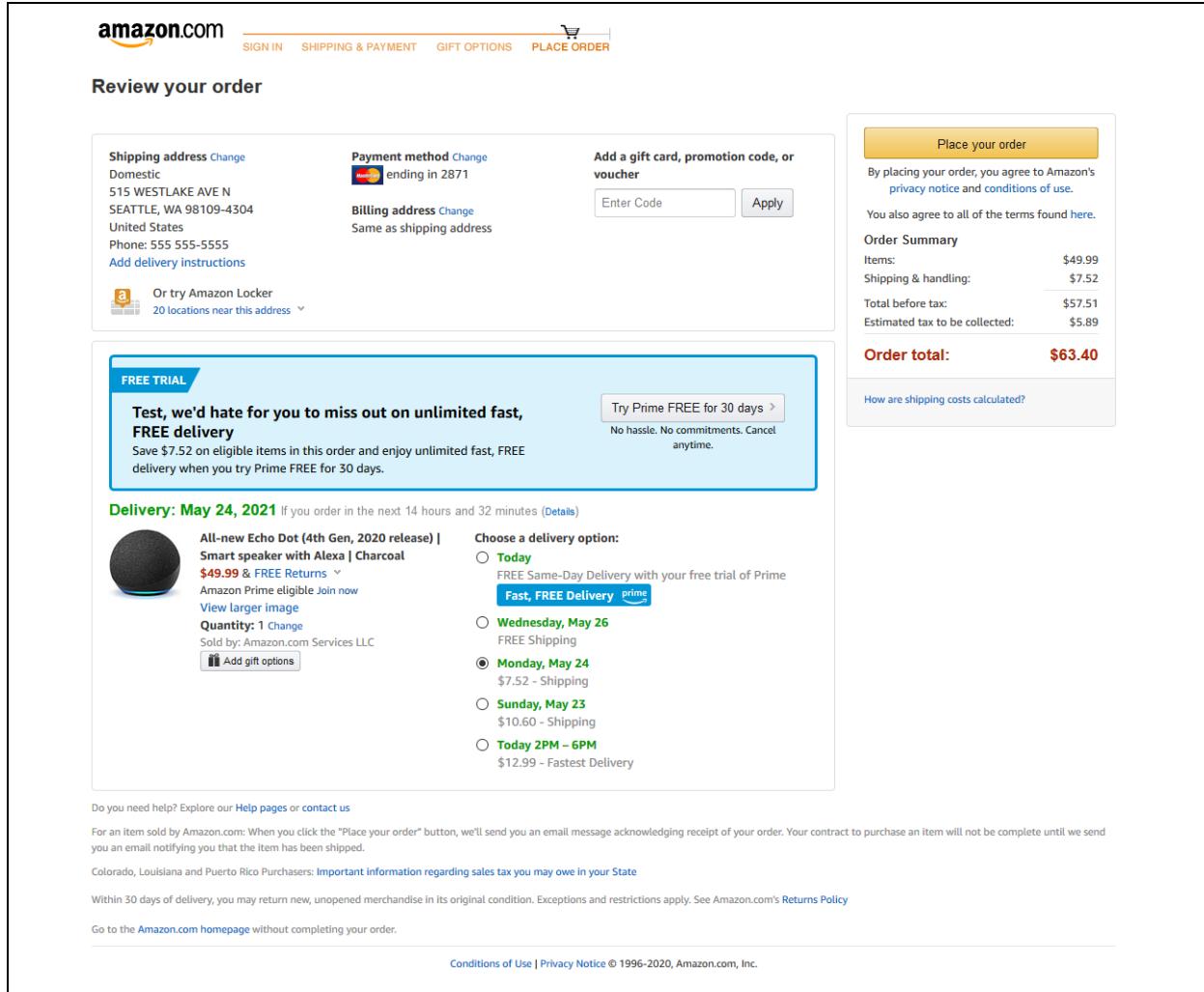
150. The FTC alleges that, "[c]onsumers enrolled in Prime through the SPC if they pressed a prominent button labelled 'Try Prime FREE for 30 days,' or selected the 'Fast FREE Delivery' shipping option. The SPC did not include information about Prime's price or auto-renewal."²⁶⁶ The FTC also alleges that "[n]owhere on this page did Amazon disclose Prime's price or its monthly auto-renewal feature."²⁶⁷ The screenshot in Exhibit 21 shows screen 5 of the SPC flow where the free Amazon Prime trial has not been added to the order.

²⁶⁴ Amended Complaint, ¶ 52.

²⁶⁵ FTC Matter No. 2123050, Amazon's Third CID Response, May 24, 2021, pp. 11–12 ("For those customers who have selected a Prime shipping option, Amazon next provides a page detailing the key terms of the Prime membership offer. Amazon provides customers with all of the material terms of Prime membership on one page. ... After they are presented with this information, customers must choose 'Start your Prime FREE Trial' to complete enrollment in Prime. If the customer would prefer not to enroll in Prime, the customer can easily select the clearly labeled 'No Thanks' button instead.").

²⁶⁶ Amended Complaint, ¶ 58.

²⁶⁷ Amended Complaint, ¶ 60.

Exhibit 21 SPC Flow – Screen 5


The screenshot shows the 'Review your order' page on Amazon.com. At the top, there are tabs for 'SIGN IN', 'SHIPPING & PAYMENT', 'GIFT OPTIONS', and 'PLACE ORDER'. The 'PLACE ORDER' button is highlighted in yellow. Below the tabs, the page is titled 'Review your order'. It displays shipping and payment information, including a shipping address (515 WESTLAKE AVE N, SEATTLE, WA 98109-4304), a payment method ending in 2871, and a billing address (Same as shipping address). There are fields for adding a gift card, promotion code, or voucher, and a 'Place your order' button. A 'FREE TRIAL' banner offers a 30-day trial of Prime with fast delivery. The 'Delivery' section shows an order for an All-new Echo Dot (4th Gen, 2020 release) on May 24, 2021. It includes options for delivery on various dates, with 'Today' selected. The total order amount is \$63.40. The bottom of the page includes standard Amazon disclaimers and links to help pages.

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 25.

151. The FTC's allegations fail to acknowledge that consumers interested in Prime would receive all the allegedly omitted information (i.e., price and autorenewal terms) before they were enrolled. Contrary to the FTC's allegations, consumers do not automatically enroll in Prime by pressing the "Try Prime FREE for 30 days" button or by selecting the "Today" option. In fact, as I describe below, such actions merely add the Prime free trial to the cart, and then update the page with the terms and conditions of the free trial. The price, autorenewal, and terms and conditions of Prime are shown in multiple locations on Screen 6—before the consumer clicks

“Place your order” and enrollment is complete. Furthermore, the consumer can still decide not to enroll by clicking the “Delete” button located directly on the page.²⁶⁸

152. The FTC alleges that, “[i]f the consumer did not select the ‘shipping option’ that would enroll them in Prime, Amazon presented additional Prime upsells [sic]. For example, Amazon sometimes presented a prominent blue box in the center of the page. ... Amazon enrolled consumers who clicked on this gray button in Prime, even if those consumers did not complete their purchase.”²⁶⁹ I understand that this allegation contradicts the information about the SPC flow described in the FTC Complaint. In fact, as described above, consumers are enrolled only after completing their order and pressing the “Place your order” button placed above the information about Prime membership autorenewal and monthly fees after the free trial, as shown on Screen 6 (shown in Exhibit 22). As the Amended Complaint points out, Screen 6 also contains a delete button directly on the page that would remove Prime from the cart.²⁷⁰

153. In sum, the Prime free trial is not automatically added to a consumer’s shopping cart or in any other way included without notice as the FTC claims. Moreover, even after the consumer adds the free trial to their cart, the consumer can delete the free trial from their cart prior to placing their order, as discussed further in the following section.

d. FTC’s Claims Regarding Screen 6 of the SPC Flow

154. The FTC alleges that, “[i]f a consumer selected an option to enroll in Prime [during the SPC Flow], the next page (which the consumer needed to get through to complete the product purchase) showed after-the-fact disclaimers. ... in smaller black font, read: ‘After your free trial, Prime is just \$12.99/month. Cancel anytime.’ Second, on the right, beneath the orange ‘Place your order’ button in small font was a block of text that linked to terms and conditions ...”²⁷¹

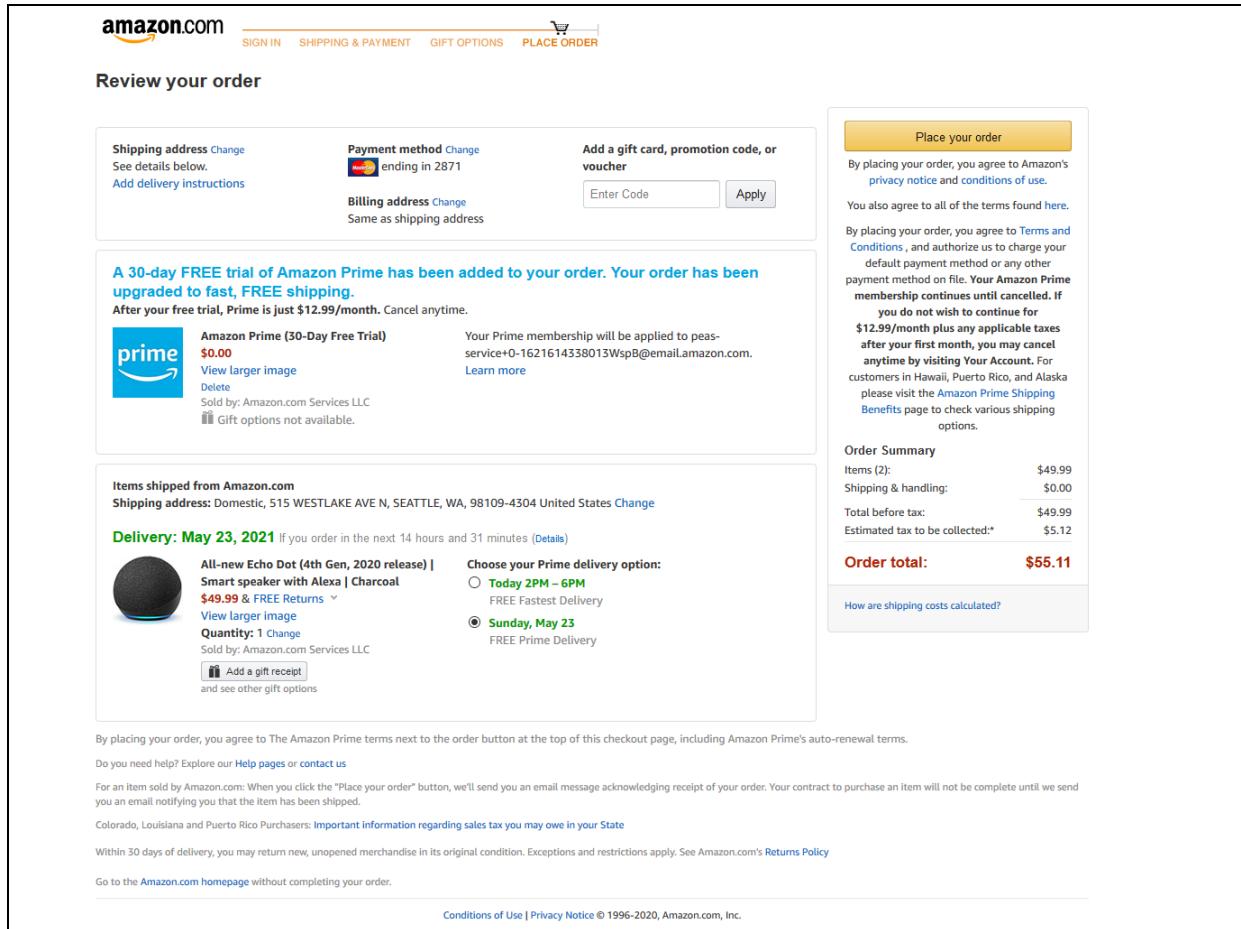
²⁶⁸ Amended Complaint, ¶ 72. See also Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, p. 25 (“In any of the three SPC scenarios mentioned, if a customer wishes to remove the Prime membership from their order after adding the membership to their basket, they can simply delete the Prime membership by changing the quantity of the Prime subscription from ‘1’ to ‘Delete’”).

²⁶⁹ Amended Complaint, ¶ 57.

²⁷⁰ Amended Complaint, ¶ 72 (“The consumer can continue their purchase without Prime only if the consumer clicks on a small box that displays the ‘quantity’ of Prime subscriptions and selects ‘Delete’ instead of ‘1.’”).

²⁷¹ Amended Complaint, ¶ 61.

Exhibit 22 SPC Flow – Screen 6



The screenshot shows the 'Review your order' page on Amazon.com. At the top, there are tabs for 'SIGN IN', 'SHIPPING & PAYMENT', 'GIFT OPTIONS', and 'PLACE ORDER'. The 'PLACE ORDER' button is highlighted in yellow. Below the tabs, the page is titled 'Review your order'. It shows the following information:

- Shipping address:** Change, See details below. Add delivery instructions.
- Payment method:** Change, ending in 2871 (with a credit card icon).
- Billing address:** Change, Same as shipping address.
- Gift card, promotion code, or voucher:** Enter Code, Apply.

A yellow box highlights the text: "A 30-day FREE trial of Amazon Prime has been added to your order. Your order has been upgraded to fast, FREE shipping." Below this, it says "After your free trial, Prime is just \$12.99/month. Cancel anytime."

Amazon Prime (30-Day Free Trial): \$0.00, View larger image, Delete, Sold by: Amazon.com Services LLC, Gift options not available.

Items shipped from Amazon.com: Shipping address: Domestic, 515 WESTLAKE AVE N, SEATTLE, WA, 98109-4304 United States Change. Delivery: May 23, 2021. If you order in the next 14 hours and 31 minutes. Details. The item listed is "All-new Echo Dot (4th Gen, 2020 release) | Smart speaker with Alexa | Charcoal" for \$49.99 & FREE Returns. View larger image, Quantity: 1 Change, Sold by: Amazon.com Services LLC, Add a gift receipt, and see other gift options.

Place your order: By placing your order, you agree to Amazon's privacy notice and conditions of use. You also agree to all of the terms found here. By placing your order, you agree to Terms and Conditions, and authorize us to charge your default payment method or any other payment method on file. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes after your first month, you may cancel anytime by visiting Your Account. For customers in Hawaii, Puerto Rico, and Alaska please visit the Amazon Prime Shipping Benefits page to check various shipping options.

Order Summary:

Items (2):	\$49.99
Shipping & handling:	\$0.00
Total before tax:	\$49.99
Estimated tax to be collected:*	\$5.12
Order total:	\$55.11

How are shipping costs calculated?

By placing your order, you agree to The Amazon Prime terms next to the order button at the top of this checkout page, including Amazon Prime's auto-renewal terms. Do you need help? Explore our Help pages or contact us. For an item sold by Amazon.com When you click the "Place your order" button, we'll send you an email message acknowledging receipt of your order. Your contract to purchase an item will not be complete until we send you an email notifying you that the item has been shipped. Colorado, Louisiana and Puerto Rico Purchasers: Important information regarding sales tax you may owe in your State. Within 30 days of delivery, you may return new, unopened merchandise in its original condition. Exceptions and restrictions apply. See Amazon.com's Returns Policy. Go to the [Amazon.com homepage](#) without completing your order.

Conditions of Use | Privacy Notice © 1996-2020, Amazon.com, Inc.

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 26.

155. Contrary to the Amended Complaint's allegation that the disclaimers about the Prime membership are shown "after-the-fact," information on price, autorenewal, and cancellation policy are shown before the consumer enrolls in Prime.²⁷² At this stage of the flow, the consumer has added the free trial for the Prime membership to the cart—but not yet confirmed enrollment in the trial by placing their order—and can read all the relevant information and delete the free trial before placing the order.

156. In fact, the relevant information about Prime membership's price and autorenewal is all presented on one page, and multiple times on the page. First, the blue box with the offer in

²⁷² Amended Complaint, ¶ 61.

Screen 5 is replaced with a recap of the Prime membership conditions (in Screen 6), that contains information about the autorenewal, price, term (“After your free trial, Prime is just \$12.99/month”), and cancellation policy (“cancel anytime”). Second, the text below the “place your order” button contains information about the autorenewal, price, term, cancellation policy (“Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes after your first month, you may cancel anytime by visiting Your Account”), and a link to the service terms (“Terms and Conditions” link). Third, the text in gray at the bottom of the page states: “By placing your order, you agree to The Amazon Prime terms next to the order button at the top of this checkout page, including Amazon Prime’s auto-renewal terms.”

157. As the Amended Complaint points out, the consumer goes through the “Review order” page to complete the product purchase, and this allows the consumer to review the information about Amazon Prime’s monthly price after the free trial, autorenewal, and cancellation policy before moving forward or placing their order.²⁷³ Consumers can delete the free trial from the cart before confirming their order.

e. FTC’s Claims Regarding “Context” of the SPC Flow

158. I understand that in the FTC’s Opposition to the Motion to Dismiss, the FTC argues that the SPC page “hides Prime’s material terms until after the consumer agrees to ‘Try Prime.’”²⁷⁴ The FTC argues that “Instead, Amazon called Prime ‘FREE’ four separate times and claimed the free trial comes with ‘no commitments.’”²⁷⁵ The FTC further alleges that “[o]nly after consumers click the button to enroll in Prime does Amazon disclose, in the third block of text under the ‘Place your order’ button [...], that Prime automatically renews, for \$12.99 per month, after the free trial. At that point, however, it is at least plausible—and in fact highly likely—an ordinary consumer would assume they had already signed up for free Prime and, when clicking ‘Place your order,’ were merely purchasing the product they wanted. Such a consumer is unlikely to

²⁷³ Amended Complaint, ¶ 61.

²⁷⁴ Opposition to Motion to Dismiss, p. 11.

²⁷⁵ Opposition to Motion to Dismiss, p. 11.

“scrutinize the page for small text” or hidden terms, especially terms related to Prime rather than their product purchase.”²⁷⁶

159. The FTC alleges that “an ordinary consumer would assume they had already signed up for free Prime” after clicking on the offer on the SPC page, but no test or demonstration is provided that an ordinary consumer would assume this.²⁷⁷ To the contrary, as I have explained above, the SPC page shows a message after the consumer clicks on the offer with the relevant information on the Prime membership. The blue box with the offer changes into a confirmation message saying that “Prime has been added to your order” and the box contains information about autorenewal, monthly fees, and cancellation policy, plus a Delete link and a Learn more link. Many consumers who click on the offer are likely to understand that the content of the box relates to the Prime offer that was displayed on the box before the click.

160. Furthermore, the information about price, autorenewal, and cancellation policy is presented between the “place your order” button and the information about the order total to pay (as shown in Exhibit 22).

161. The FTC expresses concern that “Amazon called Prime ‘FREE’ four separate times” but it does not explain why this would represent a concern for consumers.²⁷⁸ Instead, from a marketing perspective, it is a well-studied and legitimate practice to present the benefits of a product multiple times, as I discussed above.²⁷⁹ I also understand that the repeated information is accurate: it is true that the 30-days trial is free and consumers would start paying only after the end of the free trial.

4. Enrollment via Amazon’s Prime “TrueSPC” Flow

a. Overview of TrueSPC Flow

162. The final checkout flow discussed in the Amended Complaint is the True Single Page Checkout (or “TrueSPC”). The FTC describes TrueSPC as a modification of the SPC discussed

²⁷⁶ Opposition to Motion to Dismiss, p. 12.

²⁷⁷ Opposition to Motion to Dismiss, p. 12.

²⁷⁸ Opposition to Motion to Dismiss, p. 11.

²⁷⁹ See Section VIII.B.1.c.

previously, that consolidates some of the features seen in the SPC onto one page.²⁸⁰ More accurately, the TrueSPC flow refers to an entire desktop checkout experience, and includes multiple Prime offers (including pages akin to a UPDP and SPC cross-sell).²⁸¹ Customers may experience variations of the TrueSPC checkout process, which may depend on whether they have default billing and shipping information saved to their Amazon account.²⁸²

163. A version of the TrueSPC flow can be seen in Exhibit 23, which depicts a variation of the flow that a customer who already has an Amazon account may see.²⁸³ The main difference with the SPC flow shown in Exhibit 19 is that Exhibit 23’s TrueSPC Screen 4 contains the information and option previously shown on SPC Screens 3, 4, and 5. Consumers are offered a 30-day free trial offer of Prime on two screens during the checkout flow, first on the screen immediately preceding product checkout (Screen 3, that represents a version of the UPDP page) and second on the product checkout screen itself (Screen 4). As seen in Screen 3 of Exhibit 23, the consumer is first offered a 30-day free trial of Prime on a UPDP page that lists the benefits of a Prime subscription, buttons for either accepting or declining the offer, and information about the payment method, recurring monthly payment amount after the free trial, and how to cancel. In Screens 4 and 7, the consumer is again offered the 30-day Prime free trial on the final product checkout page, similar to the SPC. The offer is illustrated by a blue banner with details about the benefits of Prime, as well as a button to add the Prime trial to the cart (Screen 4). If the consumer accepts the offer, the banner text switches to indicate that the Prime trial offer has been added to the consumer’s cart (Screen 5). It also includes more details about the price of Prime, information that the consumer can cancel anytime, and also a button to remove the membership from the cart. The updated page, with the Prime membership added to the cart, is the point of enrollment for Prime for the TrueSPC enrollment flow, as consumers enroll into Prime when they click the “Place your order” button.²⁸⁴ Assuming that the consumer does not subsequently cancel their Amazon Prime membership during the free trial period, the membership is

²⁸⁰ Amended Complaint, ¶ 63.

²⁸¹ Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, at footnotes 1–2.

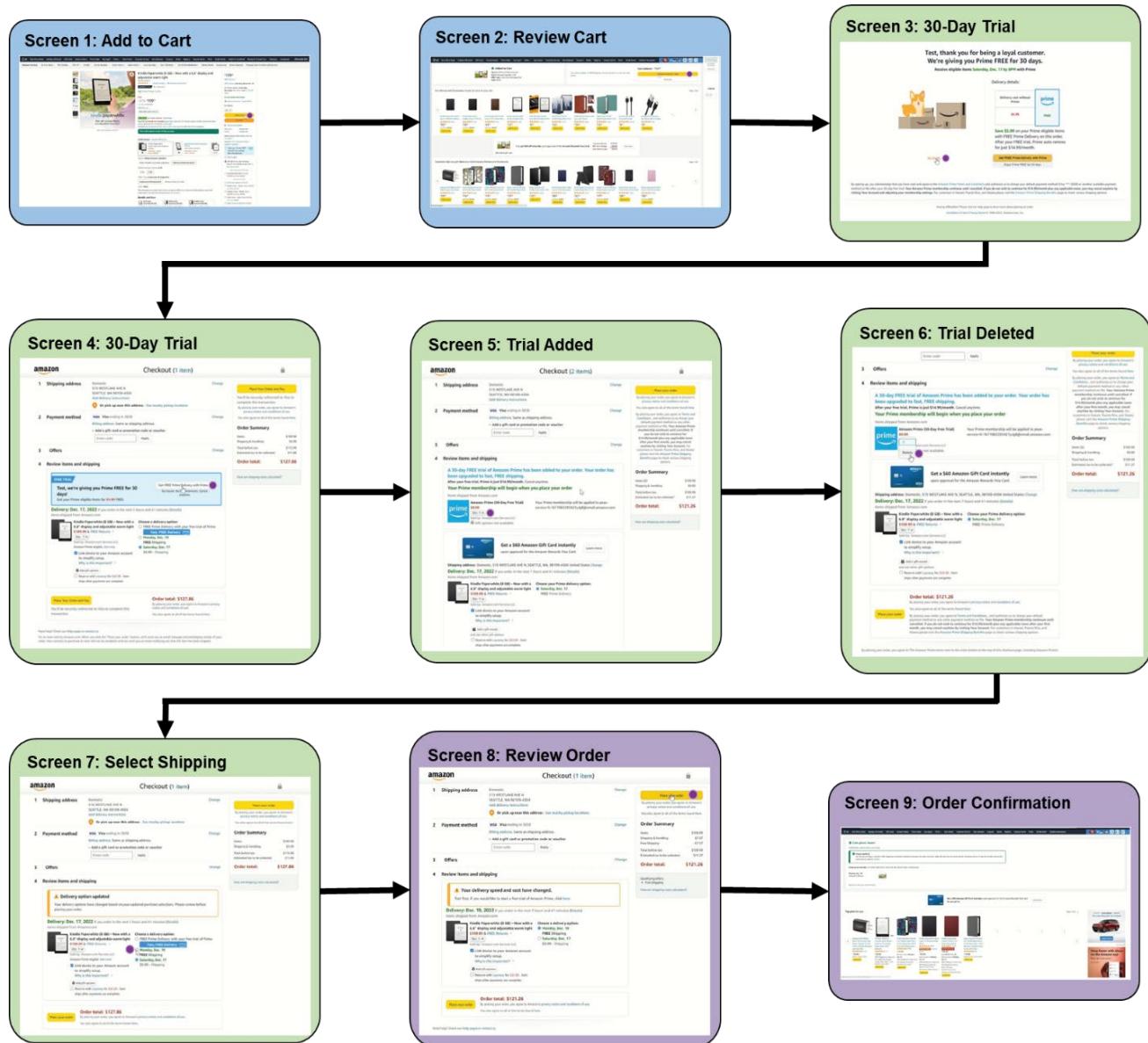
²⁸² Defendants’ Answer to the Amended Complaint, ¶ 64.

²⁸³ Amended Complaint, ¶ 66; Defendants’ Answer to the Amended Complaint.

²⁸⁴ Amended Complaint, ¶ 72.

automatically renewed at the end of the free trial, and a monthly fee is charged using one of the payment methods.²⁸⁵

Exhibit 23 TrueSPC Flow



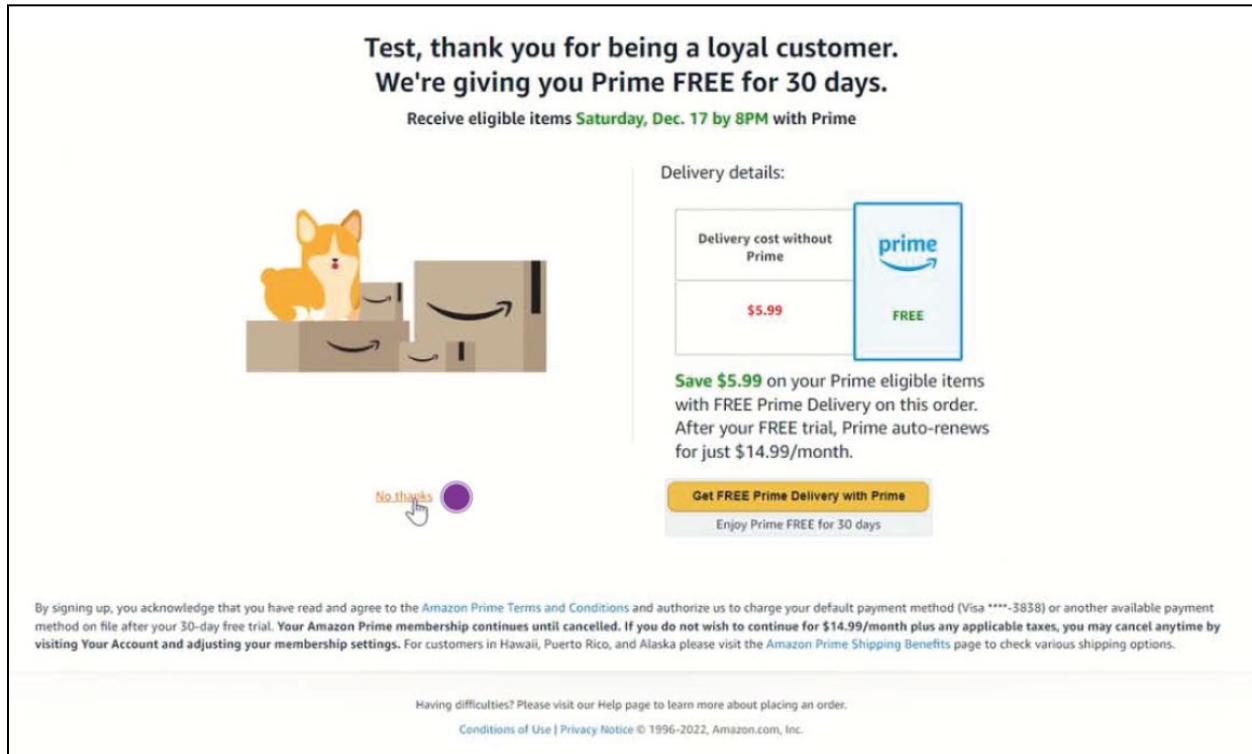
Source: Adapted from Amended Complaint, Attachment I, pages 1–9.

²⁸⁵ Amended Complaint, ¶ 72.

b. FTC's Claims Regarding Screen 3 of the TrueSPC Flow

164. The FTC alleges that “Amazon presents such consumers [who already provided billing information] with a UPDP that interrupts the checkout flow. To proceed to the next page in the TrueSPC checkout flow, consumers must either choose the large orange ‘Get FREE Prime Delivery with Prime’ button or the ‘No thanks’ link. [...] Consumers who have not yet set up an Amazon account see a different version of the UPDP.”²⁸⁶

Exhibit 24 TrueSPC Flow – Screen 3



Source: Amended Complaint, Attachment I, page 3.

165. I understand that the Amended Complaint correctly indicates that the enrollment flow requires consumers to proceed through this page in order to enroll in Prime. But the Amended Complaint fails to mention that this UPDP page contains the information about Amazon Prime's key terms and conditions, including autorenewal, monthly fees after the free trial, and

²⁸⁶ Amended Complaint, ¶¶ 66–67, Attachment K.

cancellation policy. The fact that this page “required consumers to choose” before starting the Prime free trial represents an important step in the enrollment flow.²⁸⁷

166. Furthermore, the FTC’s allegation that the UPDP page “interrupts the checkout flow” ignores that some consumers benefit from evaluating the Prime offer information during the checkout process.²⁸⁸ In fact, consumers might find the Prime offer compelling and decide to enroll into the membership program because of the information presented during the checkout process while they are evaluating shipping options. For example, the UPDP page shows an estimate of how much the consumer would save on shipping for their current order and an overview of the free shipping options for future orders included in a Prime membership. Both of these types of savings could be beneficial to customers who are evaluating shipping options.

167. The FTC also fails to consider that the Prime offer on the UPDP page constitutes a cross-sell, which is a legitimate marketing practice in both online and offline contexts. As previously discussed in Section VIII.B.1.b, cross-selling is a marketing technique designed to offer existing customers the opportunity to purchase additional products or services that are related to the product they are currently purchasing. The FTC ignores that cross-sells during the checkout process are commonly used online features that are consistent with consumers’ expectations about online shopping experiences,²⁸⁹ and therefore do not constitute an interruption to a typical checkout flow.

168. The FTC further alleges that, “TrueSPC contains many problematic elements present in the UPDP, SOSP, and SPC—including misleading language and other manipulative designs—which lead consumers to enroll in Prime without consent.”²⁹⁰ However, there are numerous UI design features that can inform the consumer’s decision on whether to enroll. For instance, as I have previously discussed in Section VIII.B.1.d, the options to accept and decline the enrollment offer are positioned directly beside each other in a way that is consistent with effective design principles. In addition, as I explain in Section VI, consumers typically look at areas of the screen where they expect to find the relevant information and call-to-action features. It is standard business practice to present customers with a call-to-action that requires a response (e.g., to

²⁸⁷ Amended Complaint, ¶ 50.

²⁸⁸ Amended Complaint, ¶ 66.

²⁸⁹ See Section VIII.B.1.b.

²⁹⁰ Amended Complaint, ¶ 64.

purchase additional products, acquire add-ons, join a membership program, provide feedback about their experience).²⁹¹ When presenting consumers with an offer, effective UI design principles recommend placing the “accept” and “decline” options to be adjacent to one another (whether vertically or horizontally), as done in Exhibit 24. Being exposed to consistent design principles across different UIs creates certain expectations for consumers on where items or features that serve similar purposes are located on UIs and what those items look like. The FTC’s claims do not consider that these UI design practices are commonly used online, and that many consumers are likely familiar with them.

169. Furthermore, as I have also previously discussed in Section VIII.B.1.d, use of visual differences (e.g., use of different colors and shapes) for multiple buttons with different purposes on the same page (such as the visual differences between the options to enroll and decline the Prime offer) are standard practice that help consumers navigate pages with more ease and follows principles of effective UI design. Many online consumers are likely familiar with choice options being presented with contrasting or visually different buttons through their experiences across different websites that follow these UI design principles.²⁹² Indeed, I have presented other examples of this practice on the FTC’s website in Exhibit 12 and Exhibit 13.

170. The FTC also does not consider whether the visual contrasts or differences in the call-to-action features on the UPDP page are consistent with visual contrasts used for similar purposes on other pages on the Amazon website. As previously discussed in Section VIII.B.1.d, many consumers who have previously shopped on Amazon are likely familiar with Amazon’s use of these UI design elements from their prior experiences navigating the website. Amazon uses call-to-action features of different color (e.g., yellow or blue), such as the one presented in Exhibit 11 with a yellow button presenting a call-to-action feature and a blue hyperlink presenting an alternative option. The FTC does not consider the role this type of visual differences, which follow the principles of effective UI design, can play in aiding consumers’ navigation, nor that consumers are likely to be familiar with their use on the Amazon website.

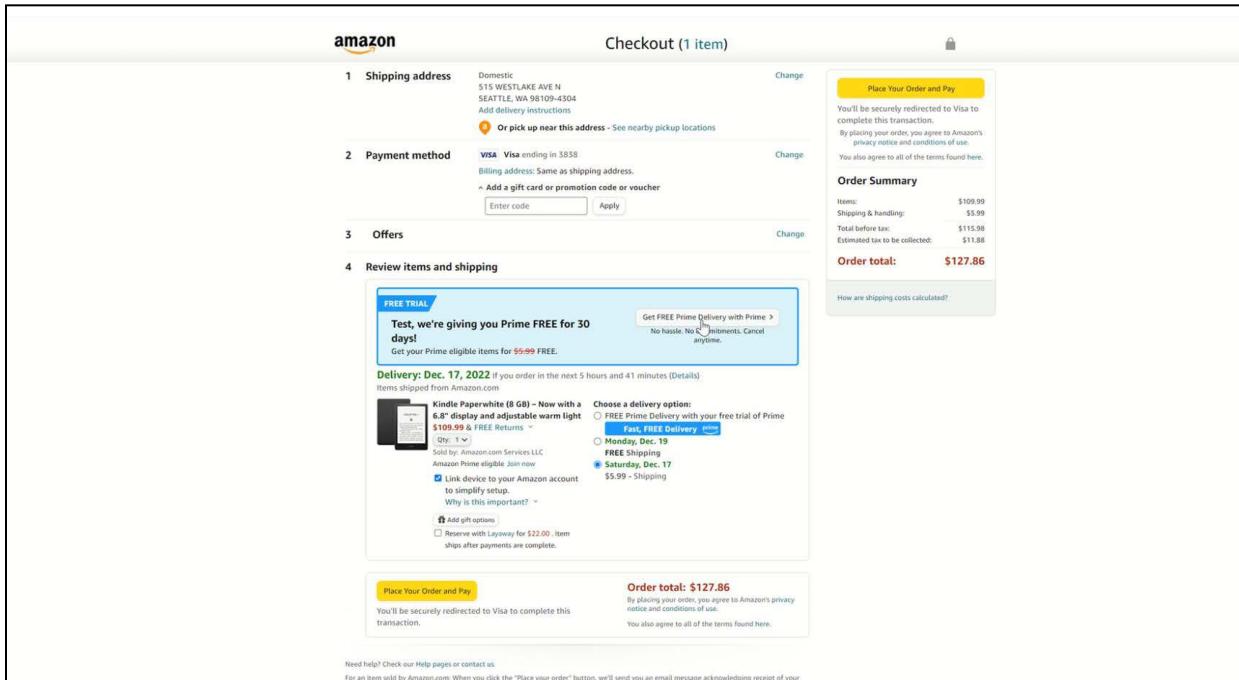
²⁹¹ See Section VIII.B.1.d.

²⁹² See Section VIII.B.1.d.

c. FTC's Claims regarding Screen 4 of the TrueSPC Flow

171. The FTC alleges that, for consumers who did not accept the Prime offer in the UPDP page (Screen 3) and who proceed to the checkout page, “Amazon has placed the first upsell [sic] within a large blue banner. On the right side of that blue banner, Amazon has a gray button that reads ‘Get FREE Prime Delivery with Prime,’ with ‘No hassle. No Commitments. Cancel Anytime’ underneath.”²⁹³ Exhibit 25 depicts this first “upsell” on the checkout page (Screen 4).

Exhibit 25 TrueSPC Flow – Screen 4



Source: Amended Complaint, Attachment I, page 4.

172. However, contrary to the FTC's claims, the inclusion of a cross-sell during the checkout process is not on its own problematic or misleading to consumers. As the Amended Complaint points out, the consumer goes through the “Review order” page to complete the product purchase, and this allows the consumer to review the information about Amazon Prime's monthly price after the free trial, autorenewal, and cancellation policy before moving forward.²⁹⁴

²⁹³ Amended Complaint, ¶ 71.

²⁹⁴ Amended Complaint, ¶ 72.

Consumers have the choice to add the free trial to the cart by selecting the offer, and after doing so, they have the choice to delete the free trial from the cart before confirming the order.

d. FTC's Claims regarding Screens 5 and 6 of the TrueSPC Flow

173. Screens 5 and 6, shown in Exhibit 26, depict what a consumer sees if they press the gray button “Get FREE Prime Delivery with Prime.” The FTC alleges that “... Amazon replaces the blue banner with a white box and changes the text to: ‘A 30-day FREE trial of Amazon Prime has been added to your order. Your order has been upgraded to fast, FREE shipping.’ ... In smaller font, the text also reads ‘After your free trial, Prime is just \$14.99/month. Cancel anytime.’”²⁹⁵

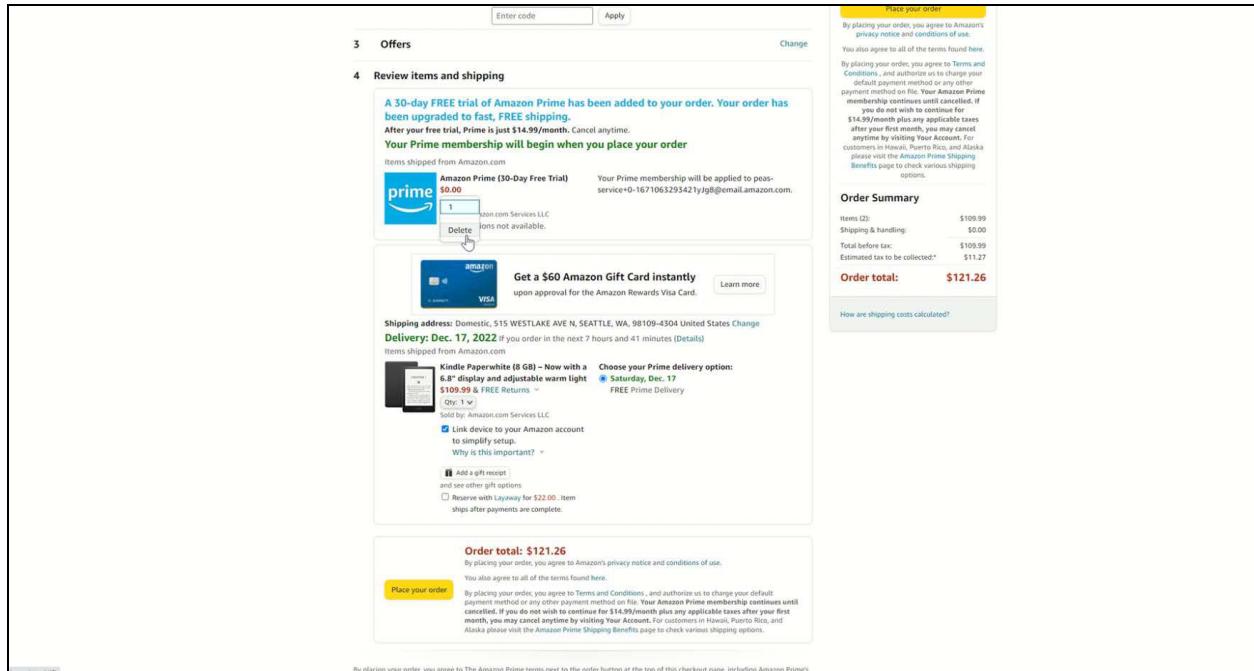
Exhibit 26 TrueSPC Flow – Screens 5 and 6

The screenshot shows the Amazon checkout process with the following details:

- Shipping address:** Domestic, 515 WESTLAKE AVE N, SEATTLE, WA, 98109-4304
- Payment method:** Visa ending in 3838
- Offers:** A 30-day FREE trial of Amazon Prime has been added to your order. Your order has been upgraded to fast, FREE shipping. After your free trial, Prime is just \$14.99/month. Cancel anytime. Your Prime membership will begin when you place your order.
- Review items and shipping:**
 - Amazon Prime (30-Day Free Trial):** \$10.00, Qty: 1, Sold by: Amazon.com Services LLC, Gift options not available.
 - Kindle Paperwhite (8 GB):** Now with a 6.8" display and adjustable warm light, \$109.99 & FREE Returns, Qty: 1, Sold by: Amazon.com Services LLC.
- Order Summary:**

Items (2):	\$109.99
Shipping & handling:	\$0.00
Total before tax:	\$109.99
Estimated tax to be collected:	\$11.27
Order total:	\$121.26
- Gift Card Offer:** Get a \$60 Amazon Gift Card instantly upon approval for the Amazon Rewards Visa Card.

²⁹⁵ Amended Complaint, ¶ 72.



Source: Amended Complaint, Attachment I, pages 5 and 6.

174. What the FTC neglects to point out is that Prime's disclosures are depicted in bold in two different locations on the page: (1) right below the orange "Place your order" button to the right above the "Order Summary"; and (2) besides the second orange "Place your order" button, located right below the "Order total" at the bottom of the page. In other words, the FTC's allegations do not consider that the TrueSPC flow shows the relevant information about the membership before consumers confirm their enrollment in Prime or complete the checkout process.

175. Moreover, consumers have the opportunity to reverse their decision through a "Delete" option available directly on the page.²⁹⁶

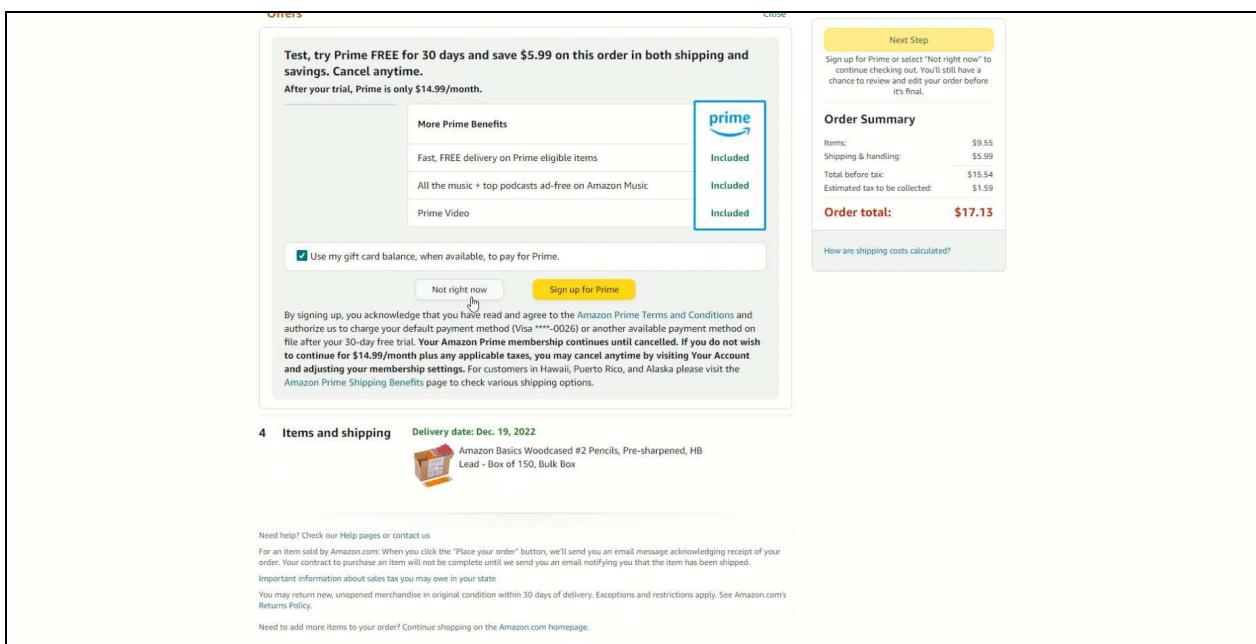
e. FTC's Claims regarding Third Checkout Page Cross-Sell of the TrueSPC Flow

176. The FTC explains that the third cross-sell on the TrueSPC page is only viewable in some pathways of the flow where the consumer declines the first two instances of the Prime offer,

²⁹⁶ Amended Complaint, ¶ 72 ("The consumer can continue their purchase without Prime only if the consumer clicks on a small box that displays the 'quantity' of Prime subscriptions and selects 'Delete' instead of '1.'").

which can be seen in Exhibit 27. The FTC alleges that, “[f]or those consumers who have not enrolled in Prime, the third element (‘Offers’) automatically opens after they input their shipping and payment information, and it presents a version of the UPDP ... To continue, the consumer must choose one of these options or close the element by clicking a small link in the upper right.”²⁹⁷ In addition, the FTC alleges that “Amazon immediately enrolls consumers who select the orange ‘Sign up for Prime.’”²⁹⁸ Moreover, the FTC alleges that “[i]f the consumer moves past the third element without enrolling, Amazon presents Prime again as part of the fourth element (‘Items and shipping’).”²⁹⁹

Exhibit 27 TrueSPC Flow, Third Cross-Sell in Checkout Page



Source: Amended Complaint, Attachment J, page 7.

177. Similar to the points discussed above about the UPDP page, the FTC does not provide specifics on how the presence of the offer during checkout somehow harms consumers. In fact, consumers might find the Prime offer compelling and decide to enroll into the membership program because of the information presented during the checkout process while they are

²⁹⁷ Amended Complaint, ¶ 74.

²⁹⁸ Amended Complaint, ¶ 75.

²⁹⁹ Amended Complaint, ¶ 76.

evaluating shipping options. Consumers who are completing the checkout process are not “forced” to enroll in Prime, and they are presented the offer with two options to accept and decline located besides each other, with a visual design that is consistent with consumers’ previous experiences on Amazon website.

178. In addition, the FTC’s characterization of the multiple repetitions of the Prime offer during the TrueSPC flow as problematic ignores that such repetition is a standard marketing practice and one that consumers would likely be familiar with. As I have previously discussed in Section VIII.B.1.c, Amazon’s repeated mentions of the free shipping benefits of Prime, and presentation of the price information once on the page, is consistent with its advertising of Prime benefits on other webpages on Amazon website, as well as marketing practices used by other ecommerce websites. The FTC fails to explain why Amazon’s repetitions of the Prime offer, which is a legitimate advertising practice, is harmful rather than beneficial to consumers who may be interested in the Prime offer.

f. FTC’s Claims Regarding “Context” of the TrueSPC Flow

179. The FTC’s Opposition to the Motion to Dismiss indicates that “[t]his same pattern—clicking a button to enroll in Prime followed by an after-the-fact disclosure—occurs on Amazon’s recently created “TrueSPC” checkout page.”³⁰⁰ Accordingly, my same opinions discussed in Section VIII.B.3.e apply here.

5. Enrollment via Amazon’s Prime “Prime Video” Flow

a. Overview of Prime Video Desktop Enrollment Flow

180. The FTC also discusses a desktop enrollment flow for Amazon Prime in which Amazon provided a 30-day free trial offer of Amazon Prime for consumers navigating the Prime Video storefront.³⁰¹ Prime Video is a content streaming service. Prime members can stream movies and TV shows for free because Prime benefits include unlimited access to Prime Video content.³⁰²

³⁰⁰ Opposition to Motion to Dismiss, p. 12, footnote 9.

³⁰¹ Amended Complaint, ¶ 113.

³⁰² “Amazon Prime – Amazon Customer Service,” *Amazon*, <https://www.amazon.com/gp/help/customer/display.html?nodeId=G6LDPN7YJHYKH2J6>.

Non-Prime members can also access Prime Video through a separate Prime Video (only) membership, that has a lower membership fee compared to Prime, and foregoes the additional benefits included with Prime (e.g., two-days free shipping for Amazon orders).³⁰³

181. The Prime Video flow is shown in Exhibit 28. In the beginning of the flow, the consumer visits a page of Prime Video (Screen 1 in Exhibit 28, also shown in Exhibit 30). The page shows the options to watch the content, and an offer to “Watch with Prime” and “Start your 30-day free trial.” If the consumer clicks on the button with the Prime offer, they move to the following screen. In case the consumer is not signed in to their Amazon account, they are asked to either sign in or create a new account and add a payment method.³⁰⁴ If the consumer is already signed in to their Amazon account, they are shown a page with details on the Prime membership offer, with information on benefits, autorenewal policy, price, and information on how to cancel (Screen 2 in Exhibit 28, also shown in Exhibit 31). This page is the point of enrollment for Prime for the Prime Video desktop enrollment flow, as consumers enroll in Prime when they click the “Start your free trial” button. On this page, consumers can make a choice of enrolling in a free trial that includes all of the benefits of a Prime membership, or a free trial that only includes Prime Video access at a reduced autorenewal fee, by clicking the “Change” button to select their desired free trial offer.³⁰⁵ If the consumer clicks on the “Start your free trial” button, they are immediately enrolled in the free trial, and they move to the last screen in the flow, which contains the same information as Screen 1, but it now shows a blue button saying “Watch now” and indicates that the content is “Included with Prime” (Screen 3 in Exhibit 28).

182. According to the Amended Complaint, the flow changed after June 2022 so that consumers who clicked the “Start your free trial” button on Screen 2 were shown an additional page that described Prime membership benefits, including “Free and Fast Shipping,” “Exclusive Deals only for Prime members,” and “Listen to more than 2 million songs,” as shown in Exhibit 29.³⁰⁶

³⁰³ Amended Complaint, ¶ 108.

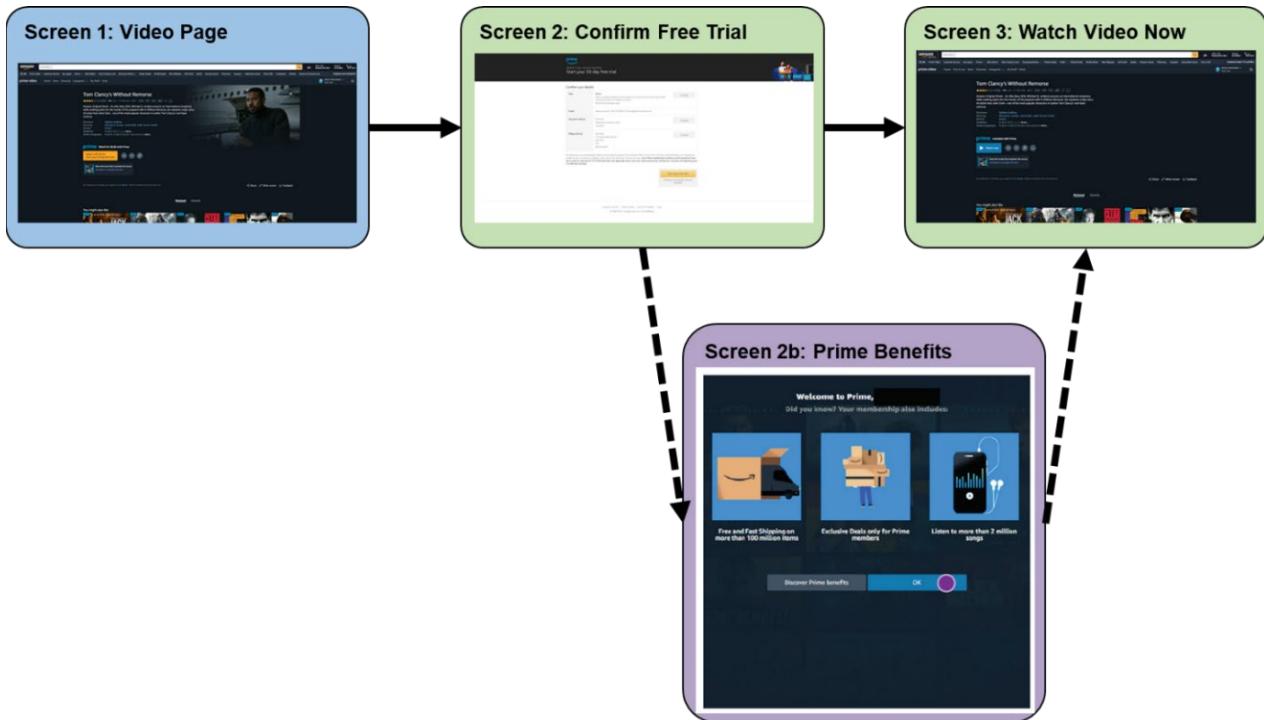
³⁰⁴ Amended Complaint, Attachment V, pp. 2–5.

³⁰⁵ Amended Complaint, ¶ 117.

³⁰⁶ Amended Complaint, ¶ 119; Attachment V, p. 7.

Exhibit 28 Prime Video Desktop Enrollment Flow before June 2022

Source: Adapted from Amended Complaint, Attachment P.

Exhibit 29 Prime Video Desktop Enrollment Flow after June 2022

Source: Adapted from Amended Complaint, Attachment V.

b. FTC's Claims regarding Prime Video Flow

183. The FTC alleges that “Amazon’s webpage tricked consumers into signing up for Prime instead of Prime Video, which would be a lower-cost option,” and that “Amazon initially offers Prime Video as part of the full, more expensive Prime package to consumers who reach the

Prime Video homepage.”³⁰⁷ The FTC also alleges that “the Prime Video enrollment process fails to clarify Amazon will enroll them in Prime rather than the less expensive Prime Video,” and that on the first screen “Amazon does not [...] present the consumer with any marketing regarding Prime, as opposed to Prime Video.”³⁰⁸

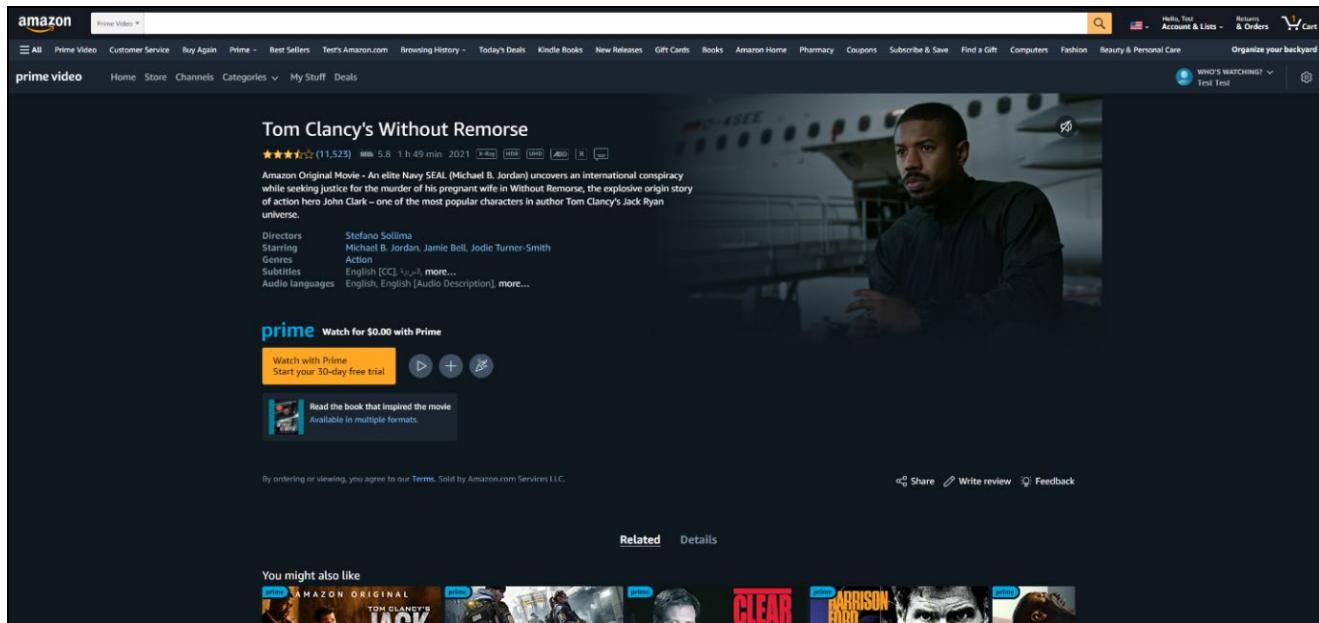
184. Contrary to the FTC’s allegation that Amazon “fails to clarify [that it] will enroll [consumers] in Prime rather than the less expensive Prime Video,” the disclosures provided on the Prime Video flow consistently indicate to the consumer that they are being offered “Prime.”³⁰⁹ In fact, the FTC’s allegation that Screen 1 does not contain “any marketing regarding Prime, as opposed to Prime Video” does not consider that Screen 1 (shown in Exhibit 30 below) refers to “Prime” (rather than Prime Video) in the offer, both on the orange button and on the logo above the button.³¹⁰ Similarly, Screen 2 (shown in Exhibit 31 below) refers to “Prime” on top of the screen and in the name of the plan.

³⁰⁷ Amended Complaint, ¶¶ 109–110.

³⁰⁸ Amended Complaint, ¶¶ 111, 115.

³⁰⁹ Amended Complaint, ¶ 111.

³¹⁰ Amended Complaint, ¶ 115.

Exhibit 30 Prime Video Flow – Screen 1


Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 28.

Exhibit 31 Prime Video Flow – Screen 2

prime

Watch now, cancel anytime
Start your 30-day free trial

Confirm your details

Plan	Prime Enjoy unlimited streaming of thousands of movies and TV shows plus FREE Two-Day Delivery on millions of items. (\$12.99/month after trial)	Change
Email	peas-service+0-1620150599217Wmev@email.amazon.com	
Payment method	Test Test MasterCard ending in 2871 10/2025	Change
Billing address	Domestic 515 WESTLAKE AVE N SEATTLE WA 98109-4304	Change

By signing up, you acknowledge that you have read and agree to the Amazon Prime Terms and Conditions and authorize us to charge your preferred card or another available credit card on file after your 30-day free trial. Your Prime membership continues until cancelled. If you don't want to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings.

Start your free trial.

Change or cancel plan anytime
Pay later

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 29.

Note: The exhibit is cropped from the original screenshot.

185. Furthermore, all the disclosures shown on Screen 2 (as shown in Exhibit 31 above) provide information on Prime membership, including information about benefits, monthly price of the subscription, autorenewal policy, and cancellation instructions in two different locations. First, the description of the "Plan" on Screen 2 indicates the benefits from Prime: "Enjoy unlimited streaming of thousands of movies and TV shows plus FREE Two-Day Delivery on millions of items."³¹¹ Unlike Prime Video, that would include only streaming service, the

³¹¹ See also Amended Complaint, Attachment V, p. 6; Attachment U, p. 5.

description of the benefits includes the additional benefits of the broader Prime membership, including two-day delivery. Right next to the Plan description is a button allowing consumers to change the plan if they desire to do so. Second, the Prime membership disclosures are presented above the orange button to start the free trial. This disclosure refers to “Amazon Prime Terms and Conditions” and indicates that “Your Prime membership continues until cancelled.” Nowhere in the disclosures does it state that the offer is for Prime Video; instead, the offer is explicitly about Prime.

C. Analyses of Amazon Prime’s At-Issue Desktop Cancellation Flows

186. The Amended Complaint contains a series of allegations regarding the complexity of the Amazon Prime cancellation process and its implications on consumers’ ability to cancel their membership.³¹² The FTC’s allegations and claims of “dark patterns” in Amazon Prime’s cancellation process fail to consider standard marketing practices and well-recognized consumer online behavior.

187. The FTC’s allegations regarding steps consumers must take to find the online cancellation flow fail to take into account that consumers are likely familiar with websites requiring them to navigate through an account management page in order to cancel.³¹³ As discussed further below, based on my analysis in Section IX of 48 programs from the ten most subscribed categories of paid digital membership/subscription programs, none of these paid digital membership/subscription programs placed a cancellation call-to-action feature on its website’s landing page as an ingress to the cancellation flow. In addition, I found that for 45 of the 48 paid digital membership/subscription programs analyzed, consumers can advance to the desktop cancellation flow from the “manage my account” page, and that for the three other remaining companies consumers do not have a way to cancel online. I also understand that there

³¹² Amended Complaint, ¶ 7 (“For years, Amazon also knowingly complicated the cancellation process for Prime subscribers who sought to end their membership. [...] Amazon designed the Iliad cancellation process (‘Iliad Flow’) to be labyrinthine...”), ¶ 162 (“Amazon did not design the Iliad Flow to be simple or easy for consumers. The Iliad Flow inhibits or prevents many consumers who intend to cancel from cancelling their membership.”).

³¹³ Amended Complaint, ¶¶ 131–139.

are more ways to reach the cancellation flow than those alleged in the Amended Complaint, including those in **Appendices C.1–C.9.**³¹⁴

188. Regarding the cancellation flow, the FTC's allegations specifically fail to recognize that (i) it is a legitimate marketing practice for companies to remind consumers of the benefits of their services; (ii) consumers have different motivations for entering a cancellation process, and consumers who enter the cancellation process may not be completely set on cancelling or may change their minds when presented with relevant information; and (iii) Amazon's cancellation process follows the commonly used principles of progressive disclosure, a design technique that allows consumers to access important information as they progress throughout the interface in a way that minimizes cognitive load, while still allowing them to access more complex information as needed. Each of these issues will be discussed further below.

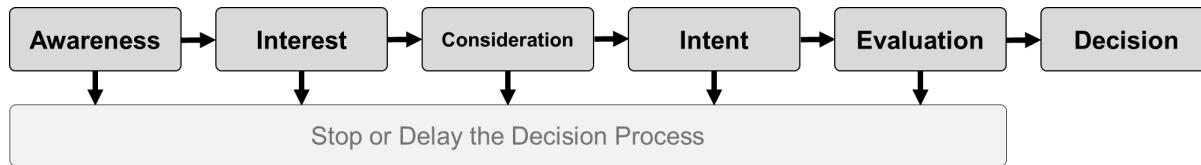
189. First, the FTC fails to consider that reminding consumers of the benefits of a company's services is a legitimate and standard marketing practice. In fact, the practice of offering incentives to consumers, or similarly reminding consumers of the benefits of a company's services, is a standard marketing practice as doing so helps companies retain consumers.³¹⁵

190. Second, the FTC disregards that consumers have different goals and motivations when entering a cancellation process which will have an impact on whether they complete the cancellation process, delay cancellation, or decide not to cancel altogether. The FTC's allegation that all consumers who locate and enter the cancellation flow "have already expressed an intent to cancel,"³¹⁶ is an unsupported assumption. This allegation presumes that consumers always have a specific goal in mind (cancelling), are 100% sure about their goal, and want to complete it immediately (in one step). These contentions are untethered to the principles of consumer decision-making processes that are well-established in the consumer behavior literature.

³¹⁴ See **Appendices C.1–C.9.** See also Deposition of Benjamin Goeltz, October 30, 2024 ("Goeltz Deposition"), pp. 89:9–91:15.

³¹⁵ See, e.g., White, T. B., et al. (2007), "Customer Retention When the Customer's Future Usage Is Uncertain," *Psychology & Marketing*, 24(10), 849–870 at 864 ("Firms can also increase the likelihood of customer retention by encouraging customers to focus on anticipated drop regret—the loss of a potential gain—either by asking consumers to consider all that they might miss if they dropped the service, or indirectly, via free trial memberships. By reminding the consumer of the benefits previously enjoyed during the trial membership, firms stand to increase the likelihood that consumers will regret not retaining the service.").

³¹⁶ Amended Complaint, ¶ 231.c.ii.

Exhibit 32 Steps of the Consumer Decision Process


Source: Adapted from Kotler and Keller (2016), 15th ed., p. 200.

191. Take, for example, the traditional concept of a “purchase funnel” that I described in Section VII.A and represented in Exhibit 32. The exhibit depicts a series of steps showing how consumers move through their decision-making process when making purchases.³¹⁷ The idea that consumers start from a “wider” set of options and narrow them down to a single element as they search for or become exposed to different sources of information can also be applied to the cancellation process. For example, a consumer might become interested in cancelling their Prime membership, then consider more carefully the idea of cancelling, and then only later form a specific intent to cancel. At that point, a consumer might evaluate the costs and benefits of cancelling before making a final decision regarding whether to cancel or not. As with a consumer’s decision-making process relating to purchases, at each step of the process, a consumer could exit the funnel by stopping or delaying the cancellation process as additional information about cancellation is obtained.

192. Consider, for example, a consumer who is aware of being charged a monthly fee for an Amazon Prime membership becomes interested in cancelling their membership. As they realize they purchased only a few products from Amazon in the past month, they evaluate whether their order activity is sufficient to justify the monthly fee. Because they are considering cancelling, they search on Amazon.com for “Cancel my Amazon Prime.” This search yields, as the top result, a link to the page “End Your Amazon Prime Membership.” They click this result, and the link takes them to the page shown in Exhibit 33 that says, “End Your Amazon Prime

³¹⁷ Purchase funnel starts with the awareness, followed by interest, consideration, intent, evaluation, and the final decision. See also Kotler, P. and K. Keller (2012), *Marketing Management*, 14th ed., Hoboken, NJ: Prentice Hall, pp. 172–180; McKinsey Consumer Decision Journey.

Membership.” They click the yellow button to “End Your Prime Membership” and are taken to the cancellation flow.

Exhibit 33 Amazon Webpage “End Your Amazon Prime Membership”

Help & Customer Service

[All Help Topics](#)

Amazon Prime

- [Amazon Prime Benefits](#)
- [Amazon Prime](#)
- [About Prime Day](#)
- [About Prime Early Access Sale](#)
- [Sign Up for the Amazon Prime Free Trial](#)
- [Share Your Amazon Prime Benefits](#)
- [Pause Your Amazon Prime Membership](#)
- End Your Amazon Prime Membership**
- [The Amazon Prime Membership Fee](#)
- [Switch Amazon Prime Membership](#)
- [Use Buy Now with Amazon Prime](#)
- [Using a Promotional Code for Amazon Prime](#)
- [Exchange a Prime Gift Membership](#)
- [Buy Add-on Items](#)
- [Scan the Amazon Elements Code](#)
- [Subscribe to Amazon Prime](#)

Find more solutions

[Shipping and Delivery](#) › [Amazon Prime](#) ›

End Your Amazon Prime Membership

You can end your Prime membership by selecting the **End Membership** button on this page.

Take Action Paid members who haven't used their benefits are eligible for a full refund of the current membership period. We'll process the refund in three to five business days.

[End Your Prime Membership](#)

- Additional subscriptions tied to your membership won't renew once your Prime membership ends.
- If your Prime membership is associated with a service you receive through another company (such as Sprint), contact that company to manage your Prime membership.
- Customers who sign up for Amazon Prime using the Android mobile shopping app or Prime Video Android app **must** manage their subscription through Google Subscription services.

To end your Amazon Prime membership:

1. Go to your [Prime](#) membership.
2. Select **Update, Cancel, and more**, and follow the on-screen instructions.

Source: Amended Complaint, Attachment T, page 3.

193. In this hypothetical example, as part of their consideration process, the consumer enters the cancellation flow to get information on cancellation. The cancellation screens show them the benefits they receive as part of their membership, including video, music, and storage for photos. As they might not be aware that some of these other benefits were included in their membership, they reconsider whether to continue or cancel. During their consideration process, they have the option to exit the cancellation flow at any time, thereby keeping their benefits, or continue on with the cancellation flow. Based on these considerations, the consumer might form an intent to cancel and continue the cancellation process. If they form an intent to cancel, they may likely

more carefully evaluate the overall cost and benefits of the program before making a final decision to cancel or not. But even if they form an intent to cancel, they may still decide not to cancel after careful evaluation of the costs and benefits of cancelling.

194. It is important to keep in mind that online consumers can have different goals and motivations when they enter the cancellation flow, which will differentially impact their online behaviors.³¹⁸ The FTC's allegations assume, erroneously and contrary to consumer behavior literature, that all consumers are affected in exactly the same way as they interact with the interface and navigate through the screens that compose the cancellation flow. Specifically, the FTC's allegations assume that all online consumers who enter the cancellation flow have already finalized their intent to cancel and plan to go through with the cancellation process. As a result, the FTC presumes that consumers must be failing to cancel because they were deterred by Amazon's use of "dark patterns." However, the FTC fails to consider that as online consumers with different goals enter the cancellation flow, they go through the steps of the decision-making process differently, and they may decide to stop or delay a cancellation process for a multitude of reasons, including recalling or learning about certain benefits they get from being a Prime member.³¹⁹

195. According to the consumer behavior literature, consumers' online activities can be directed by either a (i) browsing (experiential) motivation or (ii) goal-oriented (utilitarian) motivation.³²⁰ One consumer might explore the cancellation flow because they are curious about cancelling, without the specific goal to cancel at that time. That consumer may quit the process after learning that their membership includes benefits they were not aware of, or perhaps because they want to consider their membership more fully and make a decision at a later point in time. Another consumer might have the specific goal of canceling. This consumer enters the cancellation flow with the intent to cancel because they have already determined they no longer

³¹⁸ As explained in Section VI.A, consumer goals shape consumers online experiences. Further, typically approach online activities with (i) a browsing (experiential) or (ii) a goal-oriented (utilitarian) motivation. *See, e.g.*, Hoffman, D. L. and T. P. Novak (2009), "Flow Online: Lessons Learned and Future Prospects," *Journal of Interactive Marketing*, 23, 1, 23–34.

³¹⁹ Kotler and Keller (2016), 15th ed., pp. 200–202.

³²⁰ Hoffman, D. L. and T. P. Novak (2009), "Flow Online: Lessons Learned and Future Prospects," *Journal of Interactive Marketing*, 23, 1, 23–34 at p. 24 ("online consumer behavior is grounded in both goal-directed and non-directed motivations, and that both need to be studied and modeled for the fullest account.").

require the membership. In that case, the goal-oriented consumer is likely to follow the specific steps to complete their cancellation.

196. Consumers' different motivations during the cancellation process, i.e., goal-oriented or experiential, will likely lead to different considerations, evaluations, and use of the information presented on the webpages.³²¹ As a result, one can expect consumers with different motivations to interact differently with the webpage elements, for example spending more or less time on a page, attending to specific elements on the page, and continuing or exiting the cancellation flow. Therefore, if a consumer enters the cancellation flow, the action of entering the cancellation flow cannot necessarily be interpreted as expressing an intent to cancel during the same navigation session, nor to cancel at all, because the consumer might be instead interested in exploring and collecting information.

197. Amazon's data regarding customer's online cancellation behavior is consistent with this consumer behavior literature (i.e., that consumers can have different motivations during the cancellation process). Amazon's data show that between 2018 and Q1 2021, approximately [REDACTED] of Prime members who initiated the online cancellation process completed their cancellation.³²² Prime members who did not complete the cancellation chose different options among those offered during the cancellation flow. In particular, among members who did not complete the cancellation: (i) between [REDACTED] decided to accept an offer within the online cancellation flow (i.e., changed to another plan); (ii) between [REDACTED] clicked on the option to "Keep Membership" within the online cancellation flow; (iii) between [REDACTED] clicked on the option to "Remind Me Later"; and (iv) between [REDACTED] exited the cancellation flow (e.g., navigated away from the page).³²³ In addition, Amazon's data also shows that Prime members who initiate the cancellation process online but who do not cancel, on average, used more of their Prime benefits compared to members who did not initiate the cancellation process.³²⁴

³²¹ Novak, T. P. et al. (2003), "The Influence of Goal-Directed and Experiential Activities on Online Flow Experiences," *Journal of Consumer Psychology*, 13, 1–2, 3–16.

³²² FTC Matter No. 2123050, Amazon's CID Response to Follow-up Requests, August 6, 2021, pp. 2–3 and Exhibit E.

³²³ FTC Matter No. 2123050, Amazon's CID Response to Follow-up Requests, August 6, 2021, Exhibit E.

³²⁴ FTC Matter No. 2123050, Amazon's CID Response to Supplemental Interrogatory Request 7.1, May 23, 2022, pp. 7–8 ("This data shows that members who initiate the cancellation process online but ultimately decide to retain their Prime memberships on average take greater advantage of their Prime benefits as compared to members who did not initiate the process").

198. Consistent with the insights of the consumer behavior discussed above, Amazon's own internal data also shows that there are many different reasons for which Prime memberships can become inactive, including consumers cancelling or turning off auto-renew, experiencing billing problems, and pausing their membership.³²⁵ The data also show that while many Prime memberships become inactive, re-enrollments are relatively common. This indicates that Amazon consumers can and do cancel (or pause) their Prime memberships and also that many Amazon consumers are returning customers and thus likely familiar with Amazon's UI design elements. Specifically, of the approximately [REDACTED] Prime members who were active between May 2017 and June 2023, [REDACTED] had their Prime membership become inactive at least once, and [REDACTED] of these consumers re-enrolled at least once over this period.³²⁶ About [REDACTED] of these consumers [REDACTED] re-enrolled two or more times over this period.³²⁷ In many instances, users who re-enrolled signed up to a Prime membership plan that differed from the one they had prior to their membership becoming inactive.³²⁸

199. Third, Amazon's cancellation process follows the principles of progressive disclosure, a commonly used design technique that gradually gives consumers important information as they progress throughout the interface in order to minimize cognitive load while still allowing them to access more complex information as needed. Progressive disclosure is a well-known approach to user-interface design that attempts to achieve a balance between simplicity (an interface easy to

³²⁵ To perform this analysis, I use the dataset "Period Plan" produced by Amazon. Specifically, based on this dataset, Amazon distinguishes four types of membership status using the "membership_subscription_status" variable: "Active," "Lapsed," "Suspended," and "Terminated." According to the data dictionary produced by Amazon, Active means that the "[c]ustomer has an active Prime subscription"; Lapsed means that the "[c]ustomer's subscription has been cancelled and is no longer active"; Terminated means that the "customer's subscription has been cancelled due to fraud"; and Suspended means that the "customer's subscription has been suspended" due to a member-initiated or system-initiated pause. Further, the dataset also includes information on a change in membership status, the "membership_subscription_state" variable. This variable includes values such as "Expired," which corresponds to a cancellation requested from the customer or "due to the customer not having Auto Renew enabled"; "Billing_Problem," which corresponds to a cancellation "due to a billing problem (e.g., credit card on file expired)"; and "SYSTEM_INITIATED_PAUSE_BPS," which corresponds to a suspension "due to not resolving a billing problem." See Workpaper 2; Exhibit A to Amazon's Letter to the FTC, dated February 13, 2025.

³²⁶ Workpaper 2.

³²⁷ Between May 2017 to June 2023, [REDACTED] Prime members re-enrolled one time, [REDACTED] re-enrolled two times, [REDACTED] re-enrolled three times, [REDACTED] re-enrolled four times, and [REDACTED] re-enrolled five times or more. See Workpaper 2.

³²⁸ Of the approximately [REDACTED] re-enrollment of Prime memberships between May 2017 and June 2023, [REDACTED] were re-enrollments for a different Prime membership plan than the one that became inactive before re-enrollment. See Workpaper 2.

use) and power (the presentation of important content or features that satisfy consumers' needs).³²⁹

200. Progressive disclosure is grounded on principles from cognitive psychology and was developed to help users navigate complex user-interfaces.³³⁰ Amazon adopts progressive disclosure in the design of its cancellation flow by presenting a discrete amount of information on each screen. Presenting too much information on a single screen would be difficult for the consumer to process and would overwhelm them.³³¹ The progressive disclosure of information in the cancellation process provides consumers with the benefits and costs associated with Prime membership in a gradual way that is unlikely to overwhelm the consumer, so that they can make an informed choice about cancelling.

201. Amazon's web designers have no way of knowing why any particular Prime member is visiting the Amazon Prime Central page, whether they are considering cancelling their membership, and, if so, the reasons they want to cancel.³³² For this reason, the cancellation process provides information that can be relevant for different groups of consumers with different goals and motivations. If a consumer is concerned about the price or the payment frequency, Amazon offers the opportunity for a different payment plan and discounted pricing for the membership. If a consumer is concerned that Amazon Prime does not provide enough benefits to justify the cost of membership, Amazon provides a reminder of *all* the benefits included as part of Prime membership. If a consumer is concerned about the date of the next

³²⁹ "Progressive Disclosure," *Nielsen Norman Group*, December 3, 2006, www.nngroup.com/articles/progressive-disclosure/.

³³⁰ Galitz, W. O. (2007), *The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques*, New York, NY: John Wiley & Sons, pp. 56–57 ("Progressive disclosure. Introduce system components gradually so the full complexity of the system is not visible at first encounter. Teach fundamentals first. Then, slowly introduce advanced or more sophisticated functions. This is called the layered, or spiral, approach to learning."); Springer, A. and S. Whittaker (2020), "Progressive Disclosure: When, Why, and How Do Users Want Algorithmic Transparency Information?," *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 10, 4, 1–32 ("The original concept involved hiding advanced interface controls: allowing users to make fewer initial errors and learn the system more effectively.").

³³¹ See, e.g., Lee, B. K. and W. N. Lee (2004), "The Effect of Information Overload on Consumer Choice Quality in an On-Line Environment," *Psychology & Marketing*, 21, 3, 159–183 at p. 160 ("The basic premise of this concern is that if consumers are presented with too much information at any given time, they become overloaded and they make poorer and less effective decisions.").

³³² The "Prime Central" webpage is the membership management page that contains information about the Prime benefits, plans, monthly or annual fee and their due date. The page contains links to update or cancel the membership, update the payment method and change the membership plan. See "Prime Central," *Amazon*, <https://www.amazon.com/gp/primecentral>; Goeltz Deposition, p. 104:13–20 ("Prime Central is a page that Prime members can go to view information about their Prime membership and take actions against it, like switching plans or managing their Prime payment method or carrying on remind me later, canceling, pausing").

payment, Amazon offers a reminder before the renewal and the possibility to pause the membership.

202. Rather than overwhelming the consumer by presenting this information all at once, the information is presented progressively. The FTC's allegations do not consider the principles of progressive disclosure and instead conclude that distributing information across the pages of the cancellation flow represents an "obstruction" for the consumers that "intentionally complicat[es] [the cancellation process] through unnecessary steps."³³³

1. Amazon Prime's Desktop "Prime Central" Cancellation Flow

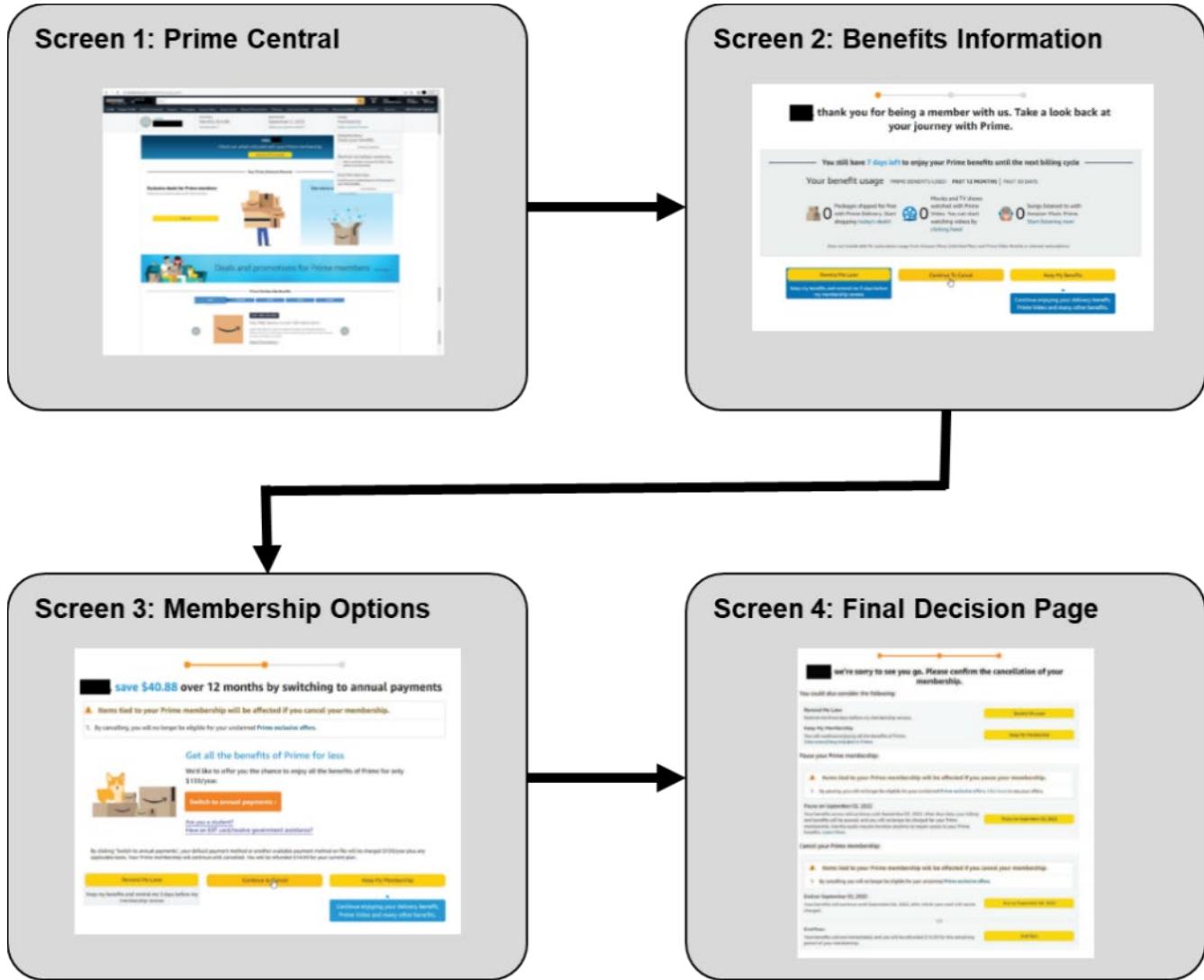
a. Overview of the Desktop "Prime Central" Cancellation Flow

203. The Prime Central cancellation process provides progressive disclosure of the relevant information about the Amazon Prime membership before cancellation is confirmed. As consumers navigate through the cancellation flow screens, they are shown information about Amazon Prime benefits and alternative payment options available to keep Prime.

204. Consumers who complete the Desktop Prime Central cancellation flow see four screens, starting on the Prime Central webpage, and ending with a final decision page.³³⁴ Exhibit 34 outlines the Desktop Prime Central cancellation flow.

³³³ Amended Complaint, ¶ 231.c.

³³⁴ Amended Complaint, Attachment Q.

Exhibit 34 Desktop Prime Central Cancellation Flow


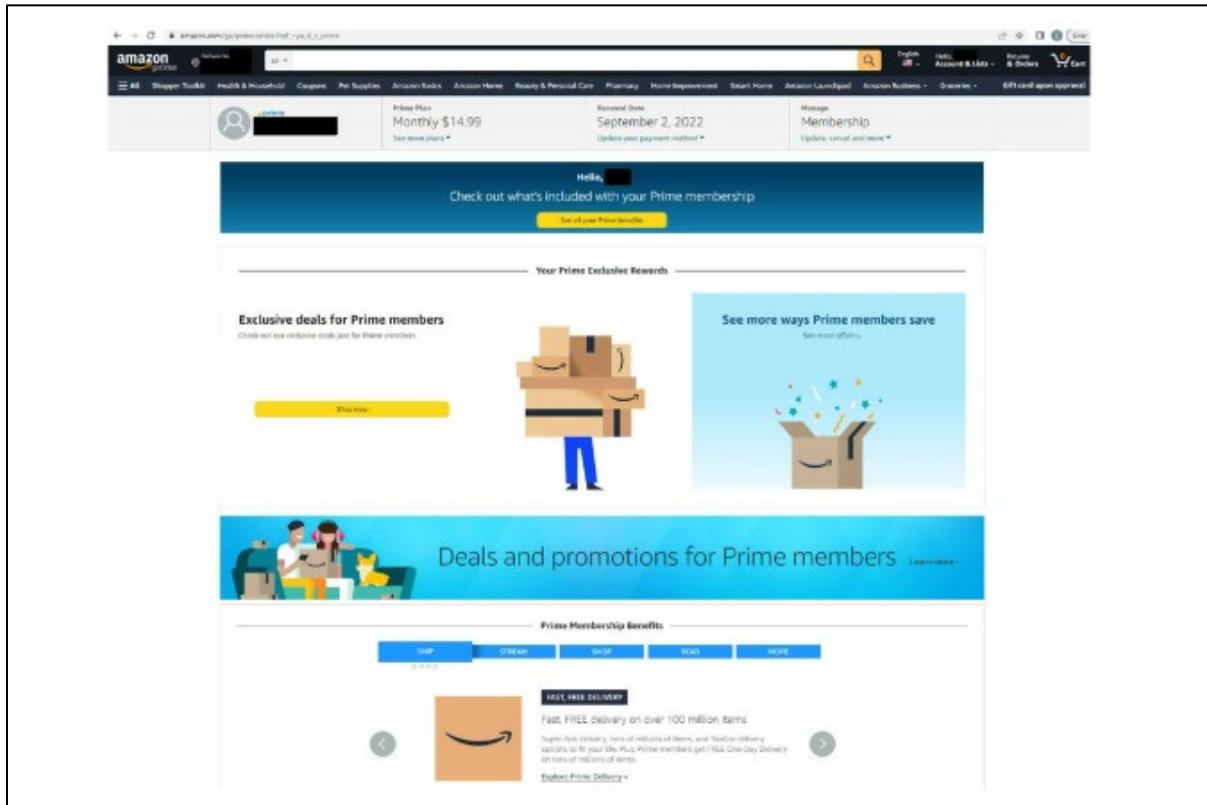
Source: Adapted from Amended Complaint, Attachment Q, pages 2–5.

Note: An alternative cancellation flow is also discussed in the Amended Complaint and replaces the first screen (Prime Central webpage) with (1) the search of the words “Cancel membership” in the search bar on the top of the webpage and (2) the page “End Your Amazon Prime Membership” with a link to the second screen (Benefits Information) in the cancellation flow shown in this Exhibit. See Amended Complaint, Attachment T.

205. The first screen in the Desktop Prime Central cancellation flow (Exhibit 35) is the Prime Central webpage. Amazon consumers can reach this page from any Amazon webpage by selecting “Prime Membership” from the “Account & Lists” dropdown menu on the top-right corner of the interface. The Prime Central webpage presents consumers information about the service plan (monthly or annual fees), the renewal date, and the benefits for Prime members. The

top of the page contains three buttons arranged horizontally, each with a dropdown menu: (1) Prime Plan, (2) Renewal Date, and (3) Manage Membership. The buttons contain information about the content of the dropdown menu; for example, the Prime Plan button allows consumers to “see more plans” and the Manage Membership button allows consumers to “update, cancel, and more.” The center of the page contains four sections dedicated to the Prime membership benefits, arranged vertically: (1) See all your Prime benefits, (2) Your Prime exclusive rewards, (3) Deals and promotions for Prime members, and (4) Prime membership benefits. Each section contains one or more links to other pages. The fourth section contains five modules with details about different categories of benefits for shipping, streaming, shopping, reading, and more.

Exhibit 35 Desktop Prime Central Cancellation Flow – Screen 1

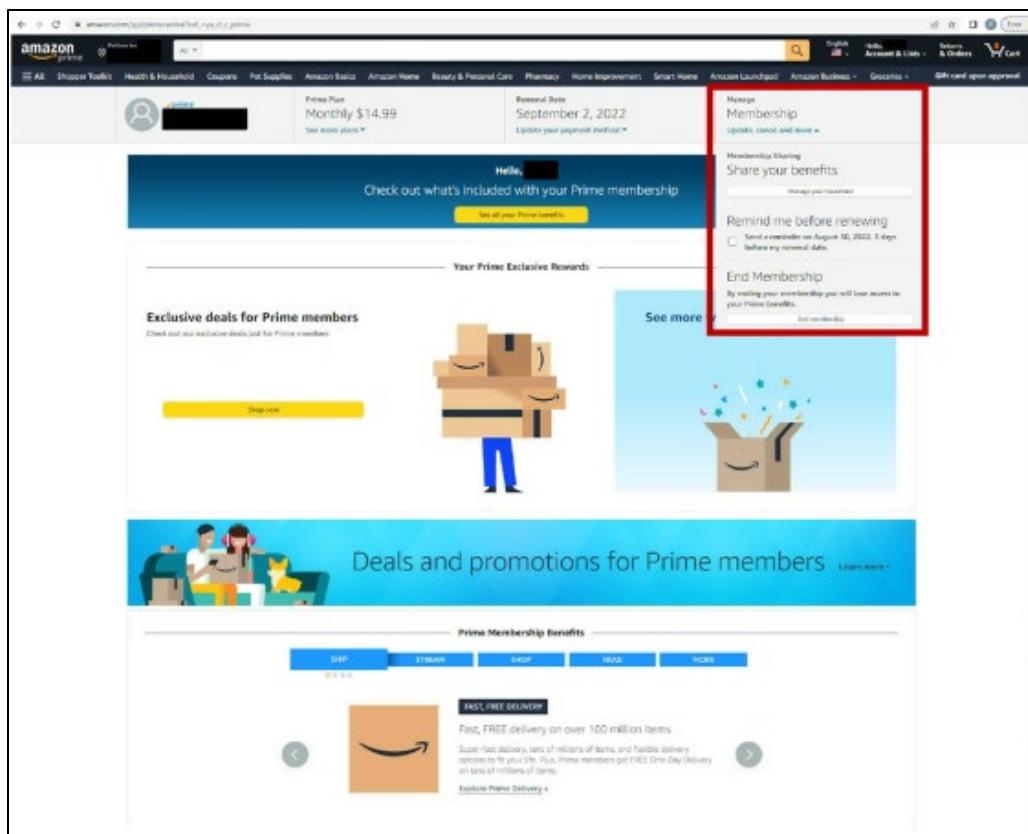


Source: Amended Complaint, Attachment Q, page 1.

206. Clicking the button “Manage Membership – Update, cancel, and more” opens a dropdown menu that contains the link to continue the cancellation process. The button and the

word “cancel” are not hidden; they are visible and displayed towards the top of the page.³³⁵ Clicking the “Manage membership” button opens a dropdown menu in the Prime Central webpage (Exhibit 36). The menu contains three items: (1) “Membership sharing,” (2) “Remind me before renewing,” and (3) “End Membership.” Clicking the “End Membership” button continues the cancellation process.

Exhibit 36 Desktop Prime Central Cancellation Flow – Screen 1, Manage Membership Dropdown Menu



Source: Amended Complaint, Attachment Q, page 2.

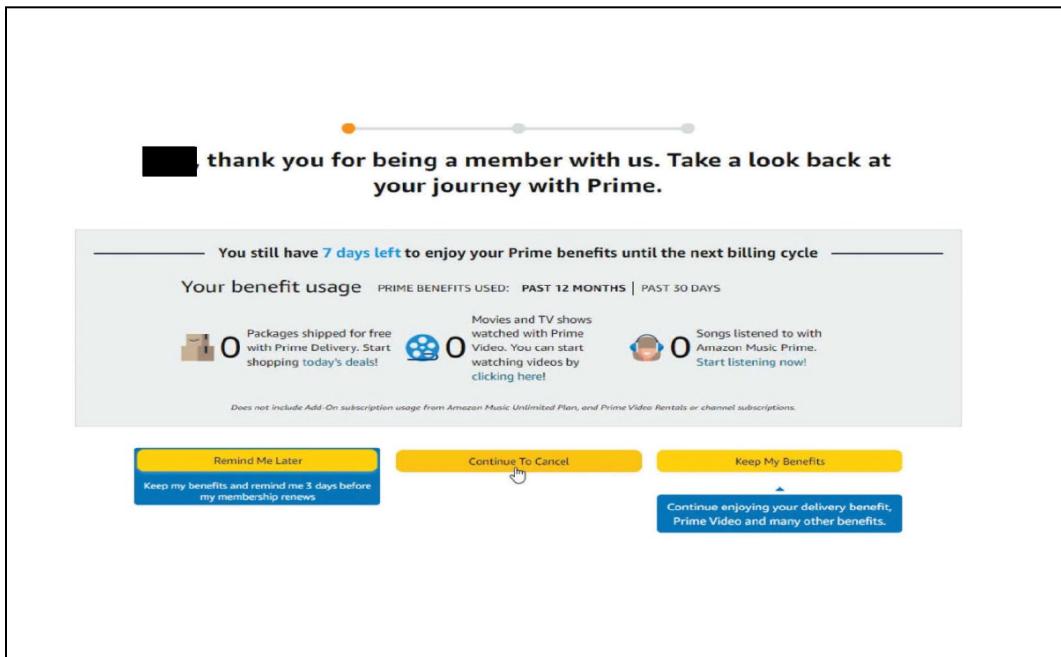
Note: Red box added for emphasis.

207. The second screen in the Desktop Prime Central cancellation flow (Exhibit 37) contains a reminder about the Amazon Prime benefits. The page indicates the number of days left in the

³³⁵ For mobile interfaces, the button and the words “update, cancel, and more” appear in the menu that the consumer sees after clicking “Manage Membership.” See Amended Complaint, Attachment R, p. 5.

billing cycle, lists three categories of benefits (free fast shipping, videos, and music), and summarizes the consumer's usage of the benefits. The bottom of the page contains three buttons, corresponding to three different actions for the Prime membership: (1) "Remind Me Later," (2) "Continue to Cancel," and (3) "Keep My Benefits." Clicking the button "Remind Me Later" enables a reminder three days before the renewal of the membership.³³⁶ Clicking the button "Continue to Cancel" continues the cancellation process. Clicking the button "Keep My Benefit" interrupts the cancellation flow and has no other effect on the membership.

Exhibit 37 Desktop Prime Central Cancellation Flow – Screen 2, Benefit Information



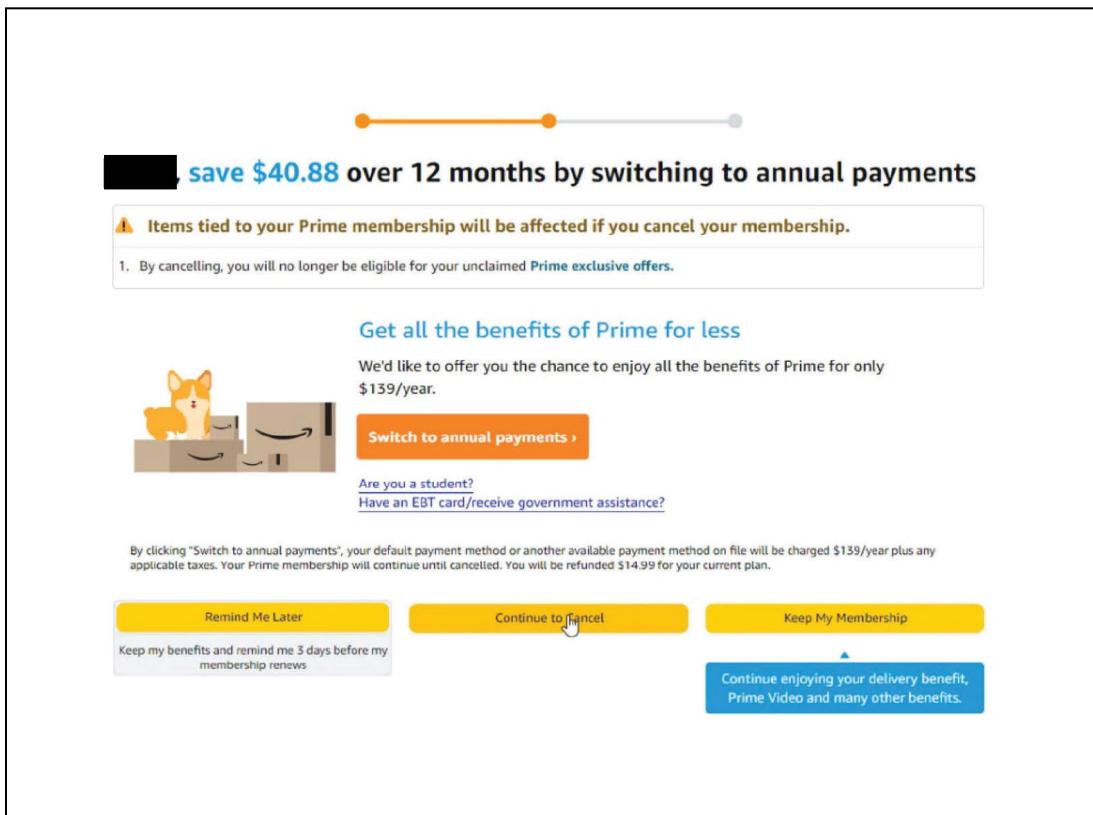
Source: Amended Complaint, Attachment Q, page 3.

208. The third screen in the Desktop Prime Central cancellation flow (Exhibit 38) contains a reminder message and information about alternative or discounted pricing options for Amazon Prime. The reminder message informs consumers about the items that will be affected when they cancel their membership. The message at the center of the page reminds the consumers that they can switch from a monthly to an annual membership (or vice versa) and that eligible consumers

³³⁶ The additional information about the "Remind Me Later" option is described in a blue box around the button.

who are students or receive government assistance can apply for a discounted pricing. The bottom of the page contains three buttons, corresponding to three different actions for the Prime membership, that are analogous in the look and function to the buttons on the previous screen (shown in Exhibit 37).³³⁷

Exhibit 38 Desktop Prime Central Cancellation Flow – Screen 3, Membership Options



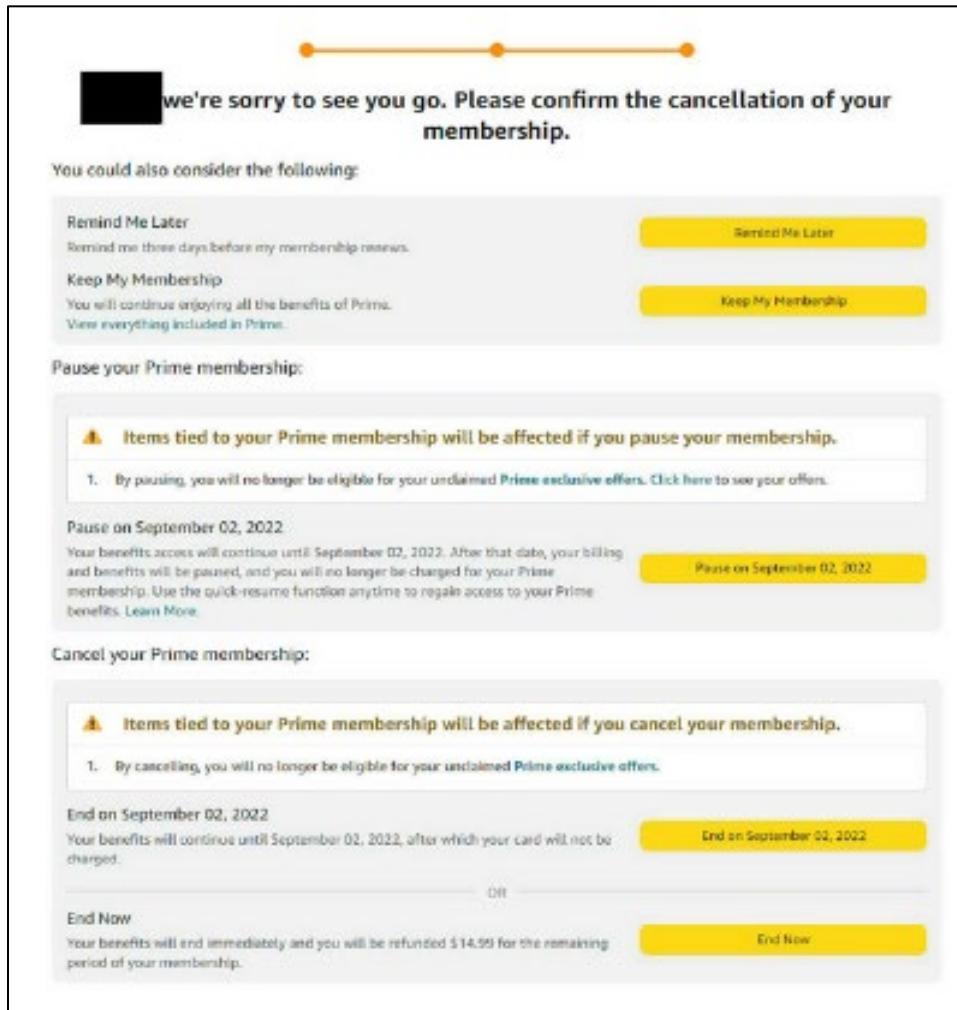
Source: Amended Complaint, Attachment Q, page 4.

209. The fourth and last screen in the Desktop Prime Central cancellation flow (Exhibit 39) contains five options related to keeping, pausing, or cancelling the Prime membership. The first two options are “Remind Me Later” and “Keep My Membership” as in the second, third, and fourth screen. The third option “Pause on [Date]” pauses the membership at the end of the current billing cycle. The last two options, “End on [Date]” and “End Now,” cancel the

³³⁷ See Amended Complaint, Attachment Q. The central button changes the capitalization of the middle word, from “Continue To Cancel” (second screen) to “Continue to Cancel” (third screen).

membership, either at the end of the current billing cycle with no refund, or immediately with a refund for the remaining period of the membership. The two sections with the pause and cancel options are accompanied by a reminder like the one displayed in the third screen that informs the consumers about the items that will be affected when they cancel the membership.

Exhibit 39 Desktop Prime Central Cancellation Flow – Screen 4, Final Decision Page



Source: "Amazon Prime Pause UC05," August 25, 2022, FTCAMZN_0023827-28; Amended Complaint, Attachment Q, page 5.

b. FTC's Claims Regarding "Forced Action"

210. The FTC alleges that Amazon uses "forced action" in the cancellation flow by "forcing the consumer to proceed through multiple screens to cancel their subscription."³³⁸ The FTC's "forced action" allegations refer to the second, third, and fourth screen of the Desktop Prime Central cancellation flow described in Exhibit 34.

211. The FTC does not explain how proceeding through multiple screens is inherently bad for a consumer who is considering cancelling.³³⁹ The FTC's characterization of this as problematic is based on the premise that inclusion of multiple screens in the cancellation process makes the process complicated.³⁴⁰ The FTC thereby implies—though never explicitly alleges as I understand their claims—that a single page cancellation flow is better for consumers.

212. I am not aware of any academic literature or any empirically-based analyses that would support this assumption. Indeed, usability experts argue for the importance of "guard rails" to minimize consumer errors.³⁴¹ For example, it is recommended that designers use confirmation dialogs to "[a]sk users whether they are sure that they want to proceed" to prevent and reduce consumer errors.³⁴² A commonly seen example is an overlay asking consumer, "Are you sure you want to permanently delete this file?" when the consumer gives the command to delete a file.³⁴³ In addition, this assumption that a single page cancellation flow is better for consumers

³³⁸ Amended Complaint, ¶ 231.a ("'Forced Action' is a design element that requires users to perform a certain action to complete a process or to access certain functionality. [...] Amazon also uses Forced Action in its Iliad Flow by forcing the consumer to proceed through multiple screens to cancel their subscription. The presence of Forced Action complicates the Iliad Flow.").

³³⁹ Amended Complaint, ¶ 231.a.ii.

³⁴⁰ Amended Complaint, ¶ 231.

³⁴¹ "10 Usability Heuristics for User Interface Design," *Nielsen Norman Group*, January 30, 2024, <https://www.nngroup.com/articles/ten-usability-heuristics/> ("User control and freedom. Users often perform actions by mistake. [...] Show a clear way to exit the current interaction, like a *Cancel* button. [...] Error prevention. Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action."); "Preventing User Errors: Avoiding Unconscious Slips," *Nielsen Norman Group*, August 23, 2015, <https://www.nngroup.com/articles/slips/> ("Strategies for preventing slips are centered around gently guiding users so that they stay on the right path and have fewer chances of slipping. Assist users by providing the needed level of precision, and encourage users to check for errors.").

³⁴² "Confirmation Dialogs Can Prevent User Errors — If Not Overused," *Nielsen Norman Group*, February 18, 2018, <https://www.nngroup.com/articles/confirmation-dialog/>.

³⁴³ "Confirmation Dialogs Can Prevent User Errors — If Not Overused," *Nielsen Norman Group*, February 18, 2018, <https://www.nngroup.com/articles/confirmation-dialog/>.

ignores the progressive disclosure principles I described previously.³⁴⁴ Each screen contains a discrete amount of information because online consumers would not be able to process all the information if it was presented on a single page. In other words, under progressive disclosure principles, consumers can benefit from information being presented gradually in multiple pages rather than a single page because the gradual introduction of information is easier to process.

213. Similarly, as I discussed above, different consumers who enter the cancellation process will necessarily have different goals and motivations: while some may be interested in exploring cancellation, not all consumers will have formed an intent to cancel, and will require additional steps in their decision processes before deciding whether to cancel or not.³⁴⁵ Thus, the cancellation flow is designed to support consumers' heterogeneous needs and empowers consumers in all phases of their decision-making process, depending on their particular objectives.

214. The FTC also fails to consider that consumers may benefit from information regarding Prime membership and its benefits. For example, a consumer might not be fully aware of Prime benefits, which include free access to streaming services like Prime Video and Prime Music. Knowing this information might change consumers' decision to cancel their Prime membership. As another example, some consumers might not be aware that Prime offers both monthly and yearly plans and additional discounts for students and people receiving benefits from certain government programs, which might also change their cancellation decision. Therefore, information on the cancellation pages helps consumers make informed decisions.

³⁴⁴ Progressive disclosure is a well-known approach to user interface design that attempts to achieve a balance between simplicity (an interface easy to use) and power (the presentation of important content or features that satisfy users' needs). Progressive disclosure is grounded on principles from cognitive psychology and was developed to help users navigate complex user interfaces. See "Progressive Disclosure," *Nielsen Norman Group*, December 3, 2006, www.nngroup.com/articles/progressive-disclosure/; Springer, A. and S. Whittaker (2020), "Progressive Disclosure: When, Why, and How Do Users Want Algorithmic Transparency Information?," *ACM Transactions on Interactive Intelligent Systems (TiIS)*, 10, 4, 1–32 ("The original concept involved hiding advanced interface controls: allowing users to make fewer initial errors and learn the system more effectively.").

³⁴⁵ According to the consumer behavior literature, consumers can be either goal-oriented (utilitarian) or browsing (experiential). A consumer might browse the cancellation page just because they are considering cancelling, and they might decide not to cancel and abandon the process after learning that their membership includes benefits they were not aware of. Another consumer might have a specific goal to cancel because they no longer need the membership and can follow the specific steps on the page to complete their cancellation. See Hoffman, D. L. and T. P. Novak (2009), "Flow Online: Lessons Learned and Future Prospects," *Journal of Interactive Marketing*, 23, 1, 23–34 at p. 24 ("online consumer behavior is grounded in both goal-directed and non-directed motivations, and that both need to be studied and modeled for the fullest account.").

215. Relatedly, the FTC overlooks the fact that having multiple pages can avoid cancellations that occur by mistake, and the possible disruptions caused by an accidental cancellation. The inadvertent cancellation of the Prime membership removes access to the free 1-day shipping option and might cause shipping delays, and loss of access to other benefits like access to books, photo storage, and entertainment. Consumers can and do make mistakes, and including measures to help consumers prevent, recognize, and recover from mistakes are standard recommended practices to improve usability of websites.³⁴⁶

c. FTC's Claims Regarding "Interface interference"

216. The FTC alleges that Amazon adopts "interface interference" in the cancellation flow and "emphasiz[es] options that divert the consumer from the flow without cancelling, and by employing warning icons [...] which evokes anxiety and fear of loss in consumers."³⁴⁷ The FTC's "interface interference" allegations refer to the second, third, and fourth screen of the Desktop Prime Central cancellation flow described in Exhibit 34.

217. First, as I show in Section IX.A.2.b.(12), companies often provide additional options other than cancelling during the cancellation flow, to give consumers alternatives to the immediate cancellation of the membership. Thus, the FTC is complaining about practices that are commonly used for membership programs.

218. Second, I am not aware of any empirical evidence or academic literature that supports the FTC's allegations that the use of "warning icons" in the context of an online cancellation process evokes anxiety and fear of loss.³⁴⁸ I understand the FTC refers to the yellow triangular icons with a black exclamation mark in the third and fourth screens of the Prime's Desktop Cancellation flow, as shown in Exhibit 40 (shown below) and Exhibit 39 (shown in Section VIII.C.1.a). The

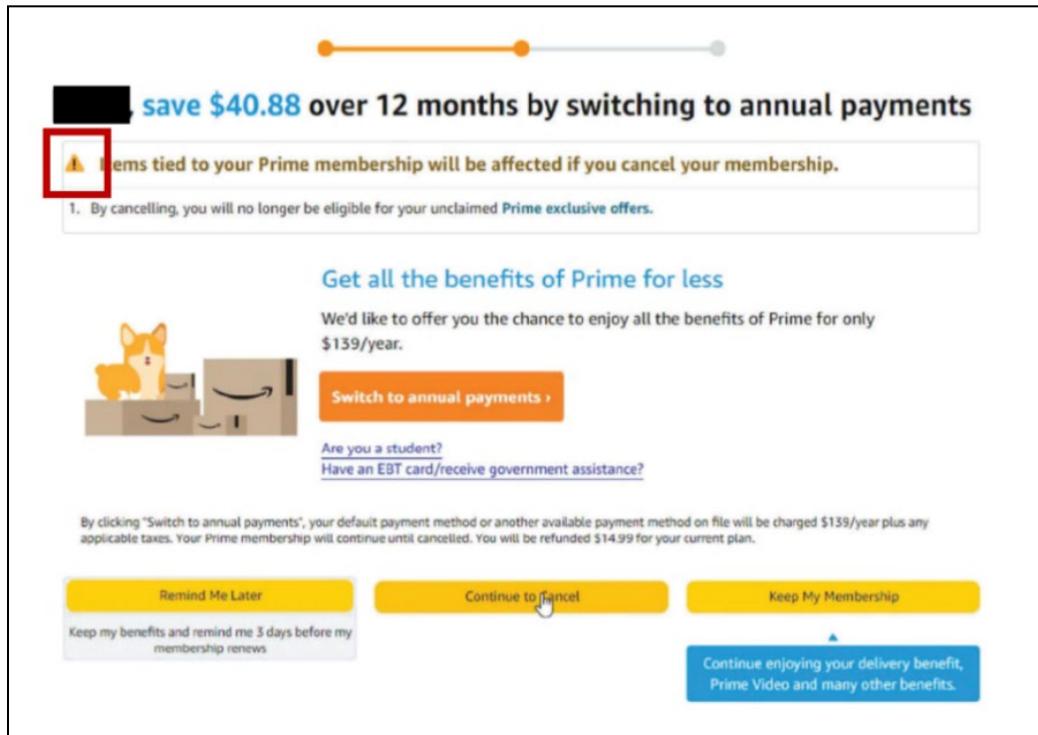
³⁴⁶ Nielsen, J. (1994), "Enhancing the Explanatory Power of Usability Heuristics," in *Proceedings of the SIGCHI conference on Human Factors in Computing Systems*, 152–158 at p. 152 ("[Based on a dataset of usability problems] a new set of nine heuristics were derived [including] user control and freedom, [...] error prevention [...] helping users recognize, diagnose, and recover from errors.").

³⁴⁷ Amended Complaint, ¶ 231.b ("'Interface Interference' is a design element that manipulates the user interface in ways that privilege certain specific information relative to other information. [...] Amazon also uses Interface Interference in the Iliad Flow by emphasizing options that divert the consumer from the flow without cancelling and by employing warning icons near the option to cancel, which evokes anxiety and fear of loss in consumers. The presence of Interface Interference complicates the Iliad Flow.").

³⁴⁸ Amended Complaint, ¶ 231.b.ii.

FTC does not explain why these elements would generate anxiety among Amazon consumers. The reminder message “Items tied to your Prime membership will be affected if you cancel your membership” next to the “warning icon” provides potentially relevant information to consumers’ decision and I understand is factually true.

Exhibit 40 Desktop Prime Central Cancellation Flow – Screen 3, “Warning Icon”



Source: Amended Complaint, Attachment Q, page 4.

Note: Red box added for emphasis.

219. Furthermore, the FTC ignores that most consumers today are likely familiar with navigation online, as discussed in Section VI. The use of “warning icons” next to important messages to invite consumers to pay attention, and the presentation of options using different formats (e.g., additional information next to a button), are online features that websites use that

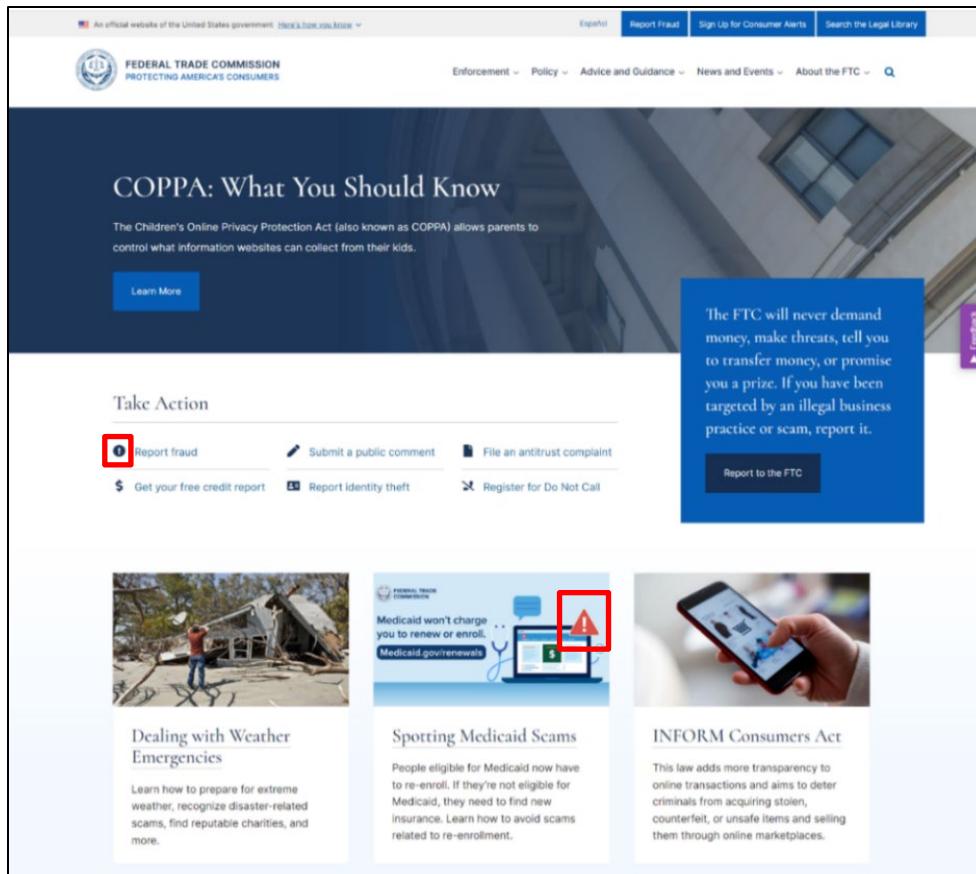
are consistent with effective design principles and consumers' expectations about how content and call-to-action features on a webpage are presented.³⁴⁹

220. Most consumers are also likely familiar with the use of "warning signs" on webpages and mobile apps which are used to highlight important information to consumers' attention. For example, the Amazon webpage "Digital content" would show a "warning icon" and the text "No Results found" if an Amazon consumer had no content.³⁵⁰ In general, "warning icons" are commonly found online, including on the homepage of the FTC website shown in Exhibit 41. The webpage contains a blue circular icon with an exclamation mark next to the "Report fraud" link and a red triangular icon with an exclamation mark next to the "Spotting Medicaid Scams" article. In both cases, I am assuming that the FTC uses such warning icons as an invitation to pay attention to important information, rather than to stimulate anxiety or fear of loss.

³⁴⁹ "Confirmation Dialogs Can Prevent User Errors — If Not Overused," *Nielsen Norman Group*, February 18, 2018, <https://www.nngroup.com/articles/confirmation-dialog/> ("The X and the exclamation mark are both reasonable icons for this type of warning"); "Indicators, Validations, and Notifications: Pick the Correct Communication Option," *Nielsen Norman Group*, January 17, 2024, <https://www.nngroup.com/articles/indicators-validations-notifications/> ("Easily recognizable icons can make very effective communication tools").

Typographical variations can also be used as indicators; examples include the common convention of boldfacing unread email messages or color-coding stock symbols in an investment account if their price has changed substantially... Mint.com used an indicator together with a notification to communicate that an account needed attention. The warning indicator (1) appeared in close proximity to the summary of the account that needed attention, while the notification (2) appeared in the central area of the page with other important information.").

³⁵⁰ See **Appendix C.14**.

Exhibit 41 “Warning Icons” on the FTC Website Homepage


Source: Screenshots collected by visiting <https://www.ftc.gov> as of August 11, 2023.

Note: Red boxes added for emphasis.

d. FTC’s Claims Regarding “Obstruction”

221. The FTC alleges that Amazon complicates the cancellation flow through “obstruction” by “making the ingress [to the cancellation flow] difficult for consumers to locate” and “forcing consumers who have already expressed an intent to cancel [...] to view marketing and reconsider options other than cancellation.”³⁵¹

³⁵¹ Amended Complaint, ¶ 231.c (“‘Obstruction,’ also known as the ‘roach motel’ technique, is a design element that involves intentionally complicating a process through unnecessary steps to dissuade consumers from an action. [...] Amazon also uses Obstruction in its Iliad Flow by: (1) making the ingress to the Iliad Flow difficult for consumers to locate; and (2) forcing consumers who have already expressed an intent to cancel by locating and entering the Iliad Flow to view marketing and reconsider options other than cancellation. The presence of Obstruction

222. The FTC does not explain how the ingress to the cancellation point (i.e., the “End Membership” button) that is located under the “Manage Membership” menu in the Amazon Prime Central webpage is difficult to locate.³⁵² Indeed, it is logical to have the cancellation option among other items on a menu of options given that consumers are not necessarily coming to the Prime webpage to cancel; rather, they might be seeking to do any number of actions (e.g., update payment method or review member benefits). Accordingly, it is appropriate for consumers to be presented with several options, including the option to cancel their membership.

223. Also, as I discuss in Section V, there are many ingress points that Amazon provides to consumers to access the cancellation flow, beyond those alleged in the Amended Complaint. Ways in which consumers can find the ingress to the cancellation flow include the following:

- a. Prime members can cancel their memberships by visiting the Amazon landing page, hovering over the “Account & Lists” dropdown menu on the top right, and taking any of the following three paths:
 - i. Navigate and click on “Prime Membership,” then click on “Manage Membership,” followed by “Update, cancel and more,” and then click on “End membership.”³⁵³
 - ii. Navigate and click on “Account,” then “Prime,” followed by “Update, cancel and more,” and then click on “End membership.”³⁵⁴
 - iii. Navigate and click on “Memberships & Subscriptions,” followed by “Prime Membership Settings,” then click on “Update, cancel and more,” and then click on “End membership.”³⁵⁵

complicates the Iliad Flow.”). *See also* Amended Complaint, ¶ 7 (“For years, Amazon also knowingly complicated the cancellation process for Prime subscribers who sought to end their membership. [...] Amazon designed the Iliad cancellation process (‘Iliad Flow’) to be labyrinthine, and Amazon and its leadership—including Lindsay, Grandinetti, and Ghani—slowed or rejected user experience changes that would have made Iliad simpler for consumers because those changes adversely affected Amazon’s bottom line.”), ¶ 162 (“Amazon did not design the Iliad Flow to be simple or easy for consumers. The Iliad Flow inhibits or prevents many consumers who intend to cancel from cancelling their membership.”).

³⁵² Amended Complaint, ¶ 231.c.ii.

³⁵³ *See Appendix C.1. See also “Amazon Redefines How Customers Manage Prime,” January 2021, AMZN-PRM-FTC-000867061-81 at 62.* According to a Digital Trends article, this process was relevant in May 2020 as well and had the term “Your Prime Membership” instead of “Prime Membership.” *See “How to Cancel Amazon Prime,” Digital Trends, April 26, 2022, https://www.digitaltrends.com/web/how-to-cancel-amazon-prime/.*

³⁵⁴ *See Appendix C.2.*

³⁵⁵ *See Appendix C.3.*

- b. Consumers can cancel their Prime memberships by clicking on the “Account & Lists” button on the Amazon landing page (rather than navigating to the dropdown menu by hovering over that button), then clicking on “Prime,” followed by “Update, cancel and more,” and then clicking on “End membership,” which would bring consumers to the cancellation flow.³⁵⁶
- c. Consumers can cancel their Prime memberships by clicking on the “All” with three bars on the top left of the Amazon landing page, then clicking on “Your Account,” then “Prime,” followed by “Update, cancel and more,” and then clicking on “End membership,” which would bring consumers to the cancellation flow.³⁵⁷
- d. Consumers can cancel their Prime memberships by clicking on the “All” with three bars on the top left of the Amazon landing page, then clicking on “Hello, [name],” then “Prime,” followed by “Update, cancel and more,” and then clicking on “End membership,” which would bring consumers to the cancellation flow.³⁵⁸
- e. Consumers can also access the cancellation flow from the Amazon landing page by clicking the “Help” link located toward the bottom of the page. Consumers can then click on “End Your Amazon Prime Membership.” Clicking on this link would lead to a “Help & Customer Service” page for “End Your Amazon Prime Membership.” Clicking the button for “End Your Prime Membership” on this page would bring consumers to the cancellation flow.³⁵⁹
- f. Prime members can also visit Amazon Prime Homepage, click on “Manage my Membership” located at the top of the page. Consumers can then click on “Update, cancel and more,” and then click on “End Membership,” which would bring consumers to the cancellation flow.³⁶⁰
- g. Prime members can enter the cancellation flow by searching “cancel membership” in the search bar of the Amazon landing page.³⁶¹ The search result page

³⁵⁶ See **Appendix C.4**.

³⁵⁷ See **Appendix C.5**.

³⁵⁸ See **Appendix C.6**.

³⁵⁹ See **Appendix C.7**.

³⁶⁰ See **Appendix C.8**. See also “Pause Membership,” August 4, 2022, AMZN_00045965.

³⁶¹ Search capability can be utilized on multiple pages when a consumer is browsing on Amazon.com.

includes a link for “End Your Amazon Prime Membership.” Clicking on this link would lead to a “Help & Customer Service” page for “End Your Amazon Prime Membership.”³⁶² Clicking the button for “End Your Prime Membership” on this page would bring consumers to the cancellation flow.

h. Consumers can also search for “cancel prime” in the search bar on the Amazon landing page, then click on “Manage membership,” followed by “Update, cancel and more,” and then click “End membership,” which would bring consumers to the cancellation flow.³⁶³

i. Consumers can cancel their Prime memberships by conducting a query on an outside search engine (e.g., search “cancel prime” using Google), and clicking on the “Cancel Your Amazon Prime Membership” search result, which would bring them to an “End Your Amazon Prime Membership” page. Clicking the button for “End Your Prime Membership” on this page would bring consumers to the cancellation flow.³⁶⁴

j. Consumers can also cancel their Prime memberships using mobile devices. Consumers can go through a mobile equivalent of the cancelling process discussed above by visiting the Amazon landing page on their device or searching membership cancellation using the search bar.³⁶⁵

k. Prime members can also cancel their Prime memberships through the Amazon mobile app by tapping on the profile icon at the bottom, then tapping on “Your Account,” followed by “Memberships and subscriptions.” This would lead to a screen with “Prime Membership Settings.” Consumers can tap on that, followed by “Manage membership,” then tap on “Update, cancel and more,” and then click on “End membership,” which would bring consumers to the mobile cancellation flow.³⁶⁶

³⁶² “Cancel Membership Page,” February 2023, FTCAMZN_0024133–39 at 33.

³⁶³ “Cancel Prime,” May 18, 2022, AMZN_00045160.

³⁶⁴ See **Appendix C.9**.

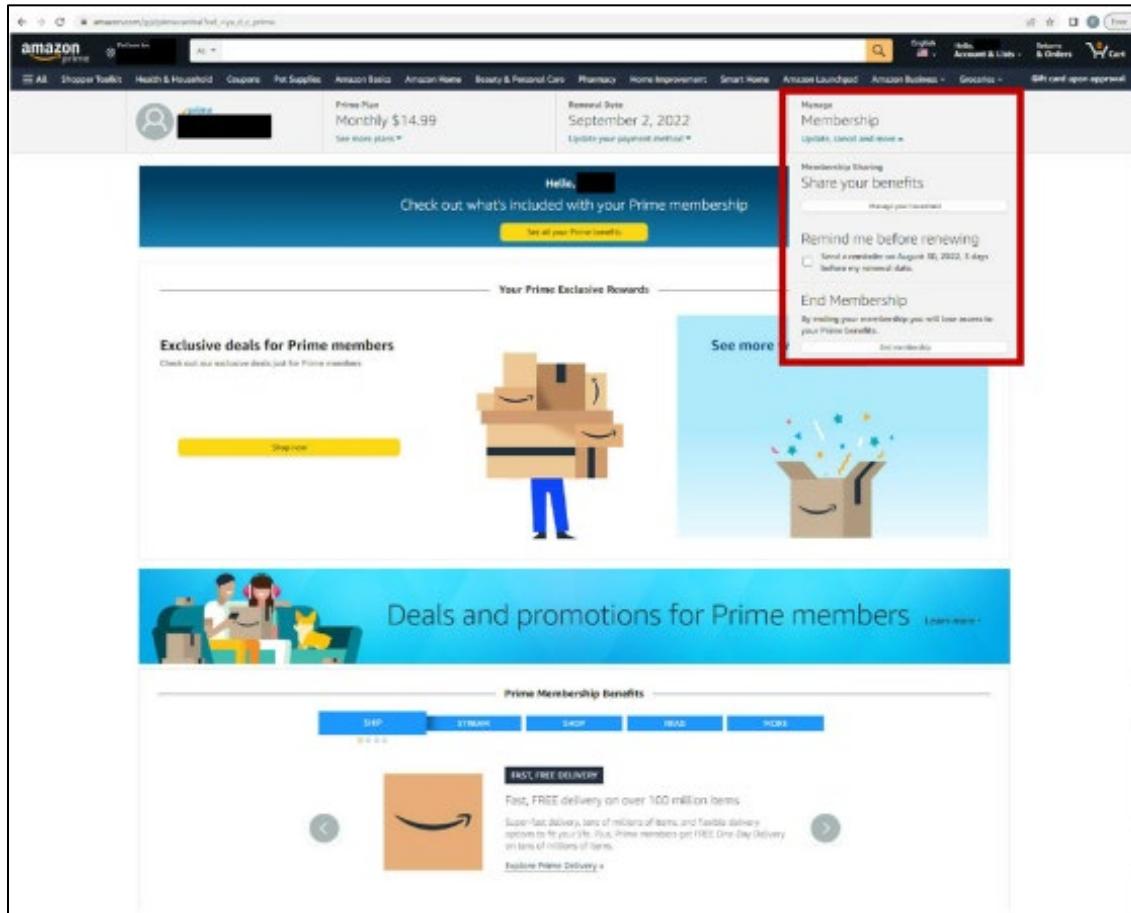
³⁶⁵ See Section VIII.E.2.

³⁶⁶ “How to Cancel Your Amazon Prime Free Trial to Avoid Getting Charged,” *Business Insider*, July 20, 2022, <https://www.businessinsider.com/guides/tech/how-to-cancel-amazon-prime-free-trial>. An article by Yahoo Finance from October 2020 notes similar cancellation steps using the Amazon mobile app. See “How to Cancel Your Amazon Prime Account,” *Yahoo Finance*, October 9, 2020, <https://finance.yahoo.com/news/how-to-cancel-amazon-prime-201436150.html>.

224. Moreover, as discussed in greater detail in Section IX.A.2.b, this kind of approach (i.e., allowing consumers to advance to the cancellation flow through an account management page) is commonly used online and thus many consumers are likely to be familiar with it and likely to expect it.

225. Relatedly, the membership cancellation path is visible on all the screens, and no buttons are hidden on the cancellation process screens. The entry point to the cancellation flow is listed on the Prime Central webpage and is located under Manage Membership, as shown in Exhibit 42. In the second, third, and fourth screens of the cancellation flow, the “Continue to Cancel” buttons are prominently displayed on each page.

Exhibit 42 Prime Central Webpage, “Manage Membership” Dropdown Menu



Source: Amended Complaint, Attachment Q, page 2.

Note: Red box added for emphasis.

226. Moreover, the FTC again *assumes* that showing consumer additional marketing information, such as Prime benefits, during cancellation is problematic.³⁶⁷ As I explained above, the Amazon cancellation flow is designed around consumers' heterogeneous needs and empowers consumers in their decision process. Amazon does not know what its customers are thinking, nor where they are in their decision-making process when they enter the cancellation flow. Amazon designs the cancellation flow to accommodate the many different needs consumers might have.

227. Prime members with an intent to cancel may wish to evaluate whether cancelling might be appropriate given their specific motivations. For example, some members might not be sure about how much they are paying and need to be reminded of the monthly charge. Others might not know whether they qualify for any potential discounts and presenting them with discounts available to them may change their intent to cancel. Some consumers may not know what portfolio of benefits Prime offers. As shown in Exhibit 32, the decision process involves an "evaluation" step, and providing additional information during the cancellation flow facilitates the evaluation process for different customers.

228. A consumer's experience of Amazon's online cancellation process can be compared with the product return process in a physical store. If a consumer is not satisfied with a pair of shoes that they purchased, they assume that they can return the shoes, albeit under certain conditions. As part of the return process, the in-store customer service representative might ask the consumer whether they are looking for a store refund to use immediately to purchase a new product, or a full refund to the credit card. If the consumer would like a different size, the representative might find the desired size and the initially planned "return" becomes an "exchange" because of the options that were described in the return process. Similarly, Prime members can look for assistance by reaching out to Amazon customer service, or by clicking on the "Manage membership" menu on the website. During the cancellation flow, the website interface contains messages similar to the conversation that the customer would experience in the store: "do you want to change plans?," "are you aware of this discount?," "do you want a refund or to stop the membership at the end of the cycle?".³⁶⁸ Similar to the in-store conversation, the

³⁶⁷ Amended Complaint, ¶ 231.c.

³⁶⁸ Amended Complaint, Attachment Q.

consumer can continue with the planned “return” or can choose to “exchange” the current Prime plan with a different one.

e. FTC’s Claims regarding “Misdirection”

229. The FTC alleges that Amazon adopts “misdirection,” which it defines in the Amended Complaint as “a design element that focuses a consumer’s attention on one thing to distract from another.”³⁶⁹

230. The FTC alleges that Amazon uses “misdirection” in two ways: (1) it “present[s] consumers with asymmetric choices [such as] animation, a contrasting color blue, and text to draw consumers’ attention to ‘Remind me later’ and ‘Keep my benefits’ options rather than the ‘Continue to Cancel’ option; and (2) it present[s] visually appealing options to perform acts other than cancel, such as exploring the benefits of the subscription service,” and therefore exiting the cancellation flow.³⁷⁰ The FTC claims that Amazon’s use of “misdirection” “complicates” the cancellation flow.³⁷¹ The FTC’s “misdirection” allegations refer to the second, third, and fourth screen of the Desktop Prime Central cancellation flow described in Exhibit 34.

231. The FTC’s allegations that these interfaces represent “misdirection” fail to consider that the interface uses text boxes with additional information to provide the consumer with relevant details to make an informed decision, as shown in Exhibit 43. For example, unlike the “Continue to cancel” option, the “Remind me later” option needs additional details to communicate to the consumer, i.e., when is “later” and what happens in the meantime until Amazon reminds them about cancellation. This information is provided in the blue box beneath the button. Moreover, as discussed in Section VII, customer retention efforts are standard marketing practices and the

³⁶⁹ Amended Complaint, ¶ 231.d.

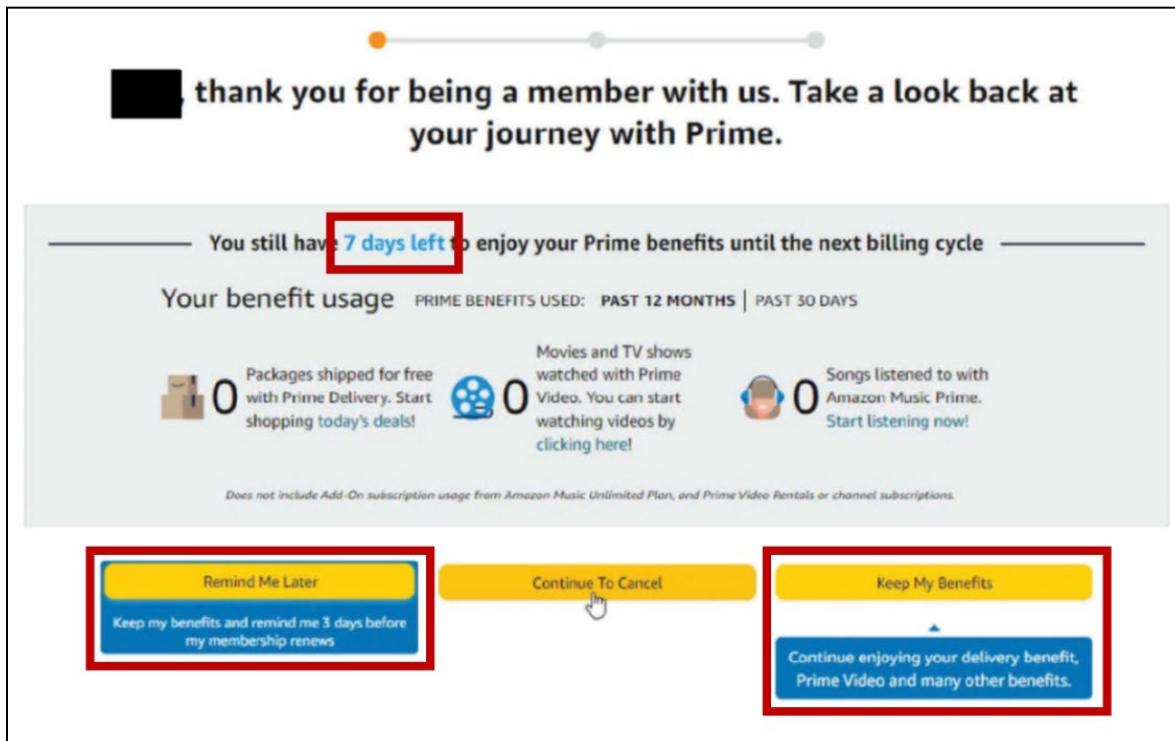
³⁷⁰ Amended Complaint, ¶ 231.d (“‘Misdirection’ is a design element that focuses a consumer’s attention on one thing to distract from another. [...] Amazon also uses Misdirection in its Iliad Flow by presenting consumers with asymmetric choices that make it easier to abandon an attempted Prime cancellation than to complete it. In particular, Amazon uses attractors such as animation, a contrasting color blue, and text to draw consumers’ attention to ‘Remind me later’ and ‘Keep my benefits’ options rather than ‘Continue to Cancel.’ Amazon further misdirects consumers who have entered the Iliad Flow by presenting visually appealing options to perform acts other than cancel, such as exploring the benefits of the subscription service (thereby exiting the Iliad Flow). The presence of Misdirection complicates the Iliad Flow.”).

³⁷¹ Amended Complaint, ¶ 231.d.iii.

academic marketing literature shows that it is more cost-effective for companies to retain consumers than acquire new ones.

232. Goal-oriented consumers who intend to cancel their membership can follow the specific steps to complete their cancellation and may not require additional information. In that case, the presence of additional details in the text boxes is likely to have no impact on their ability to identify the button to “Continue to Cancel.” On the other hand, browsing consumers, who have an interest in assessing whether to continue or cancel their membership, might benefit from receiving additional details in the text boxes as they consider cancellation. For those consumers, information about Prime benefits (shown in Exhibit 43) and available discounts (shown in Exhibit 38) are likely to be useful to consumers during their consideration. Contrary to the FTC’s claims about misdirection, for these consumers, provision of this additional information during the cancellation flow would help them in their evaluations and help them identify their best course of action.

Exhibit 43 Desktop Prime Central Cancellation Flow – Screen 2, Additional Information Presented to Consumers



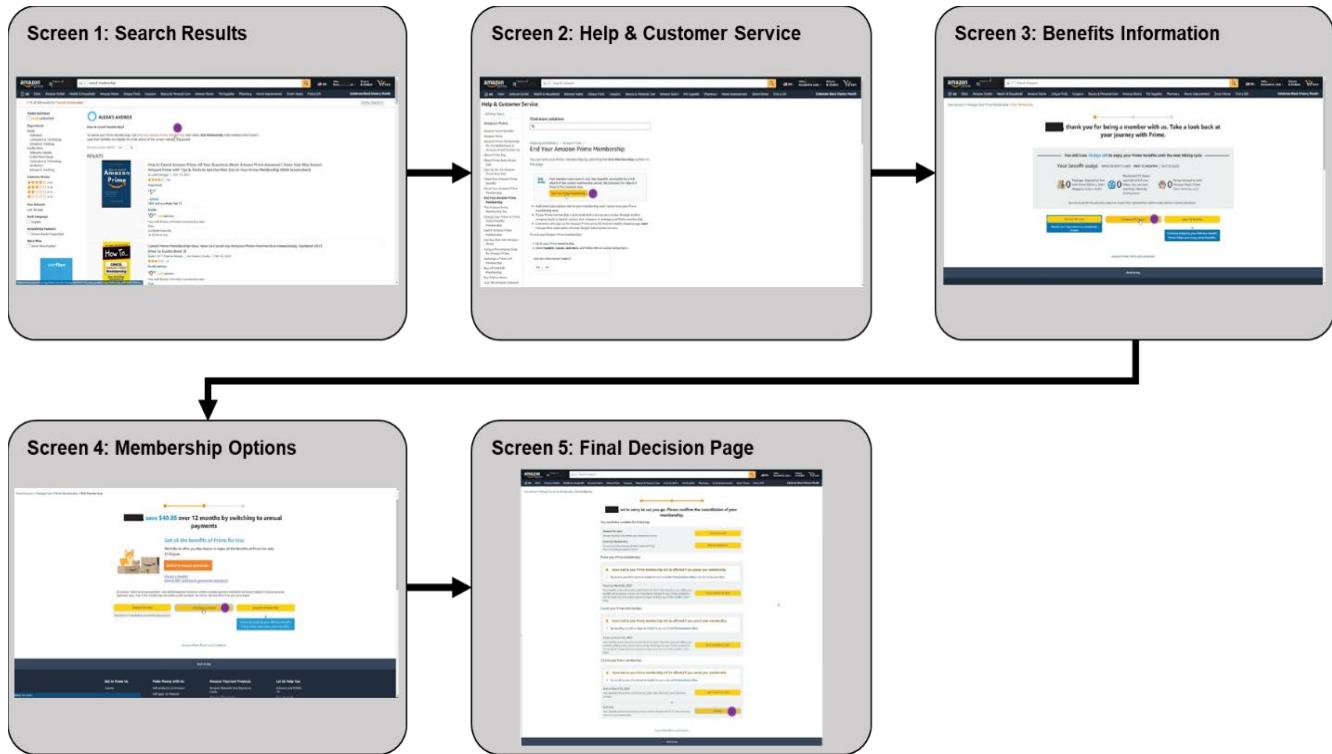
Source: Amended Complaint, Attachment Q, page 3.

Note: Red boxes added for emphasis.

233. Furthermore, the FTC does not consider that the many Amazon consumers would likely be familiar with the color scheme of call-to-action features (e.g., yellow buttons, blue hyperlinks) used on the Amazon website, as well as in the cancellation flow. As discussed in Section VI, consumers' online experiences are shaped by any relevant prior knowledge they possess about the website, which include the overall visual design scheme.

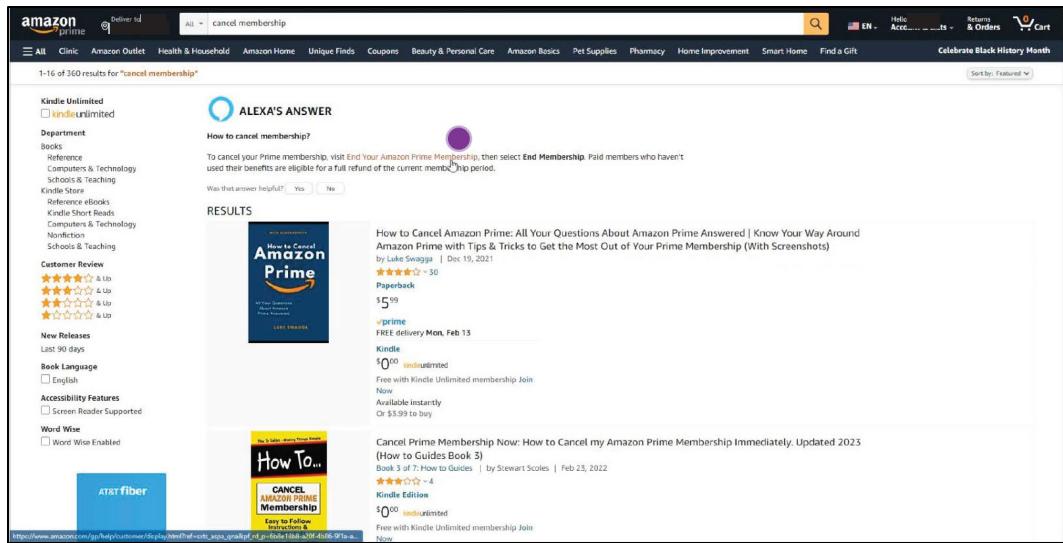
2. Amazon Prime's Desktop Search Bar Cancellation Flow

234. Consumers can enter the cancellation flow by searching “cancel membership” or related keywords in the search bar of the Amazon website. These consumers would typically see two additional screens which then lead to the second screen of the Desktop Prime Central cancellation flow. Exhibit 44 outlines the Desktop Search Bar cancellation flow.

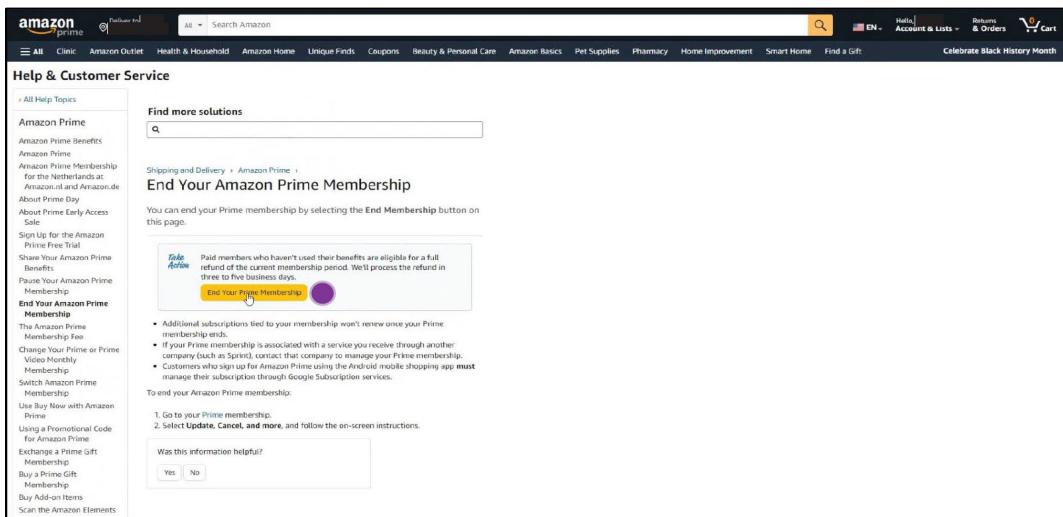
Exhibit 44 Desktop Search Bar Cancellation Flow


Source: Adapted from Amended Complaint, Attachment T, pages 2–6.

235. The first screen after typing “cancel membership” in the search bar (Exhibit 45) is the search result page with Alexa’s Answer on top, which presents the answer to the “How to cancel membership?” question. Alexa’s Answer includes a link for “End Your Amazon Prime Membership.” Clicking this link would lead to the second page of the flow (Exhibit 46), which is a “Help & Customer Service” page for “End Your Amazon Prime Membership.” This page includes information about full refund eligibility, a button for “End Your Prime Membership,” and additional information about cancellation. Clicking the button would lead to the second screen of the Desktop Prime Central cancellation flow (Exhibit 37).

Exhibit 45 Desktop Search Bar Cancellation Flow – Screen 1, Search Results


Source: Amended Complaint, Attachment T, page 2.

Exhibit 46 Desktop Search Bar Cancellation Flow – Screen 2, “Help & Customer Service”


Source: Amended Complaint, Attachment T, page 3.

236. As discussed above, FTC's claims about "forced action," "interface interference," "obstruction," or "misdirection," in relation to the last three pages of the Desktop Search Bar cancellation (which represent the part of the Desktop Search Bar cancellation flow that overlaps

with the Desktop Prime Central cancellation flow) are not founded.³⁷² The FTC claims that the links and buttons on the first two pages of the Desktop Search Bar cancellation flow (which are the only two pages that do not overlap with the Desktop Prime Central cancellation flow) do not directly cancel the membership but lead consumers to more pages instead.³⁷³ However, these two pages do not present issues as the FTC alleges.

237. Similar to the Desktop Prime Central cancellation flow, the FTC ignores the progressive disclosure principles, ignores the potential benefits of reminding consumers of the benefits of Prime membership, and overlooks the fact that having multiple pages can avoid cancellations that occur by mistake.

238. The FTC's allegation of "interface interference" does not apply to the first two pages of the Desktop Search Bar cancellation flow as the first page shows search results without showing information about Prime membership and the second page focuses on information about cancellation, with a single button for "End Your Amazon Prime Membership."³⁷⁴

239. Contrary to the FTC's allegation that Amazon makes "the ingress [to the cancellation flow] difficult for consumers to locate," the Desktop Search Bar cancellation flow shows that consumers can enter the cancellation flow by searching phrases such as "cancel membership" in the Amazon search bar, which is located at the top center of the Amazon website pages.³⁷⁵

240. The FTC's allegation that Amazon adopts "misdirection" does not apply to these two pages as neither of these two pages offers additional buttons or options other than "End Your Amazon Prime Membership."³⁷⁶

D. Analysis of the Comparison Between Amazon Prime's Enrollment and Cancellation Flows

241. The FTC argues that Amazon Prime enrollment and cancellation flows have different levels of complexity by comparing the number of pages or number of clicks between the online

³⁷² Amended Complaint, ¶ 231.

³⁷³ Amended Complaint, ¶ 136 ("Clicking the link did not end Prime membership. Instead, it took the consumer to another page with a heading that read: 'End Your Amazon Prime Membership.' The page contained a button labelled 'End Your Prime Membership.' Pressing the button did not end Prime Membership. Instead, it took the consumer to the Iliad Flow.").

³⁷⁴ Amended Complaint, ¶ 231.b.

³⁷⁵ Amended Complaint, ¶ 231.c.ii, Attachment T.

³⁷⁶ Amended Complaint, ¶ 231.d.

cancellation flow and an unspecified method of enrollment.³⁷⁷ Specifically, the FTC alleges that enrollment requires “one or two clicks” in comparison with the “four-page, six-click” cancellation process that contains “extraneous information unnecessary to the cancellation process and presented solely to discourage cancellation.”³⁷⁸

242. The FTC’s claims related to the ideal length of the cancellation process and its assumption that a shorter cancellation process with few or just one click would be preferable for consumers ignore that the enrollment and cancellation processes are aimed at addressing different consumer goals. Each process requires responding to different customer motivations and information needs. Furthermore, as discussed above, progressive disclosure principles state that presenting information progressively—which may mean more pages and more clicks—is simpler for consumers to understand information, whereas presenting all of the information on one page may be overwhelming and more complex.³⁷⁹ Moreover, the FTC does not elaborate on what number of clicks or pages would make a process “simple” versus “complex,” nor does it provide a basis for this reasoning.

243. The design of both Amazon Prime’s enrollment and cancellation processes are consistent with standard user-interface design principles, giving consumers control, freedom, and measures to prevent and recover from errors.³⁸⁰ One of these interface design principles involves giving users control and freedom, as “[u]sers often perform actions by mistake,” and therefore need an easy and fast way to exit the unwanted action, like a cancel button.³⁸¹ As discussed above, both

³⁷⁷ Amended Complaint, ¶ 128 (“The Iliad Flow required consumers intending to cancel to navigate a four-page, six-click, fifteen-option cancellation process. In contrast, customers could enroll in Prime with one or two clicks.”).

³⁷⁸ Amended Complaint, ¶ 257 (“[In updated cancellation processes] Amazon still requires five clicks on desktop and six on mobile for consumers to cancel from Amazon.com. And both flows still require consumers to proceed through extraneous information unnecessary to the cancellation process and presented solely to discourage cancellation.”).

³⁷⁹ “Progressive Disclosure,” *Nielsen Norman Group*, December 3, 2006, www.nngroup.com/articles/progressive-disclosure/. *See also* Lee, B. K. and W. N. Lee (2004), “The Effect of Information Overload on Consumer Choice Quality in an On-Line Environment,” *Psychology & Marketing*, 21, 3, 159–183.

³⁸⁰ “10 Usability Heuristics for User Interface Design,” *Nielsen Norman Group*, January 30, 2024, <https://www.nngroup.com/articles/ten-usability-heuristics/> (“User control and freedom. Users often perform actions by mistake. [...] Show a clear way to exit the current interaction, like a *Cancel* button [...] Error prevention. Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.”); Nielsen, J. (1994), “Enhancing the Explanatory Power of Usability Heuristics,” in *Proceedings of the SIGCHI conference on Human Factors in Computing Systems*, 152–158 at p. 152 (“[Based on a dataset of usability problems] a new set of nine heuristics were derived [including] user control and freedom [and] error prevention [...]”).

³⁸¹ “10 Usability Heuristics for User Interface Design,” *Nielsen Norman Group*, January 30, 2024, <https://www.nngroup.com/articles/ten-usability-heuristics/>.

Amazon Prime's enrollment and cancellation flows include call-to-action features that allow Amazon consumers to exit the flow,³⁸² and these features give control and freedom to consumers over the online navigation experience. Another principle relates to error prevention, for which designers should “[e]ither eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.”³⁸³ Both Amazon Prime's enrollment and cancellation processes follow this principle as they provide Amazon consumers multiple chances to confirm their options and provide consumers information about the Prime benefits to eliminate the chance that consumers enroll or cancel their membership by mistake.

244. From a consumer behavior perspective, there is no justification for the two processes to have the same length. Both processes should be clear, informative, and based on an understanding of the consumers' informational needs specific to the relevant process. The amount of information presented is likely to be different because it is associated with different motives, consequences, and details necessary to provide the desired consumer experience and empower the consumers.

245. Consider an example from a different industry such as airlines. A consumer with an airline account can purchase a ticket online in a few clicks. If the consumer wants to cancel the ticket or change the date, they might need to go through a longer process, for example talking to an agent, and confirm whether the consumer intends to replace the ticket, how the payment will be reimbursed, and how long the credit will be valid for a new purchase. Similarly, an individual who is able to pick up an item in-store that was purchased online may experience a lengthier process when returning that item in-store, as it may include waiting in a service line to talk to a customer representative and being offered an exchange rather than a refund.

246. Accepting a free trial cross-sell has no associated monetary cost for the consumer until the first payment due at the expiration of the free trial. The cancellation of a membership, by contrast, might cause immediate undesired results. For example, membership cancellation results

³⁸² See, e.g., the call-to-action feature used to present the consumer with the option to reject the Prime offer after selecting “FREE Same-Day Delivery with a free trial of Amazon Prime” in the SOSP enrollment flow (Exhibit 15, Screens 4–6) and the call-to-action feature used to present the consumer with the option to remind Prime members about the membership renewal three days before the renewal in the Desktop Prime Central cancellation flow (Exhibit 34, Screen 2). These features allow consumers to exit the current enrollment or cancellation flow, respectively.

³⁸³ “10 Usability Heuristics for User Interface Design,” *Nielsen Norman Group*, January 30, 2024, <https://www.nngroup.com/articles/ten-usability-heuristics/>.

in longer shipping dates, loss of free shipping, loss of Prime discounts, and loss of Prime benefits, including benefits provided through Kindle, Prime Video and other video streaming services, Amazon Music, Prime Gaming, Amazon Fresh, and Whole Foods Market, among other benefits.³⁸⁴ The FTC's allegations ignore the fact that Amazon's cancellation process protects the consumer from uninformed cancellation and provides a safeguard to avoid disruptions in the usage of benefits that consumers may want to consider keeping before choosing to cancel their membership.³⁸⁵

247. The FTC claims that consumers can enroll in Prime through devices other than desktops and mobile devices such as the Prime Video application on the Amazon FireStick (or Fire TV Stick) and Fire TV, but cannot unsubscribe from their memberships using the FireStick and Fire TV.³⁸⁶ The Fire TV Stick is a streaming device that consumers can plug into a TV to turn any TV into a smart TV.³⁸⁷ I use the term "Fire TV" to refer to the line of related products offered by Amazon, including "Fire TV Cube," "Fire TV Stick," and "Fire TV Stick 4K."³⁸⁸ Fire TV allows consumers to watch movies and shows or listen to music through streaming services such as Netflix, HBO Max, and Prime Video.³⁸⁹ Consumers can start a 30 day free trial and enroll in Prime membership through the Prime Video application on Fire TV.³⁹⁰ The page with the Prime free trial offer contains information about the Prime auto-renewal after the free trial and monthly

³⁸⁴ "Amazon Prime – Amazon Customer Service," *Amazon*, <https://www.amazon.com/gp/help/customer/display.html?nodeId=G6LDPN7YJHYKH2J6>.

³⁸⁵ Investigational Hearing of Jamil Ghani, November 16, 2022 ("Ghani IH"), p. 44:1–6 (Amazon "succinctly share[s] information we find relevant and customers have told us is relevant to making an informed cancellation decision, we present that in a way that serves the needs of the individuals for whom that would be helpful and doesn't stand in the way of those that for whom it's not helpful"); Investigational Hearing of Benjamin Hills, November 21, 2022, p. 24:16–19 ("It was easy to make an informed decision as to whether or not cancellation was the right choice for that customer, whether or not to address the actual reason for wanting to cancel."); Investigational Hearing of Neil Lindsay, October 21, 2022, p. 274:14–22 ("Q. What was the primary purpose of the cancellation flow? A. To inform our customers as they're making a decision as to whether to cancel or not ... It's to help customers make informed decision about canceling.").

³⁸⁶ Amended Complaint, ¶ 129 ("Although consumers may have enrolled in Prime through devices other than computers and smartphones, such as through the Prime Video application on the Amazon FireStick and Fire TV, they could not cancel via these same technologies. Instead, they had to use the Iliad Flow or call customer service.").

³⁸⁷ "Amazon Fire Stick: Here's What it is, How it Works, Cost," *The Economic Times*, July 11, 2023, <https://economictimes.indiatimes.com/news/international/us/amazon-fire-stick-heres-what-it-is-how-it-works-cost/articleshow/101676115.cms?from=mdr>; "What Is a Smart TV?," *Best Buy*, <https://www.bestbuy.com/discover-learn/what-is-a-smart-tv/pcmcat1689628115735>.

³⁸⁸ "Purchase of Amazon Fire Stick," November 2022, FTCAMZN_0023904–31 at 07–16; "Amazon Fire TV Cube vs. Fire TV Stick vs. Fire TV Stick 4K vs 4K Max: What Should You Buy?," *Tom's Guide*, updated October 2, 2024, <https://www.tomsguide.com/us/fire-tv-stick-differences,news-19962.html>.

³⁸⁹ "The Best Streaming Services in 2024," *Tom's Guide*, updated January 16, 2025, <https://www.tomsguide.com/us/best-streaming-video-services,review-2625.html>.

³⁹⁰ "Purchase of Amazon Fire Stick," November 2022, FTCAMZN_0023956–81 at 56.

fee.³⁹¹ The fine print on the page also contains information on the payment method available and method to cancel the membership.³⁹²

248. Even though consumers cannot cancel their Prime membership directly from the Prime Video application on Fire TV, they can do so using desktop (discussed above) or mobile devices (discussed hereafter). In fact, consumers can find the relevant information about how to manage and cancel a Prime membership through the Fire TV. In the “Account & Profile Settings” page, under “Prime Video,” the consumer can find the list of websites to manage the subscriptions and transactions.³⁹³

E. Analysis of Amazon Prime’s Flows on Mobile Devices

1. Mobile Enrollment Flows

249. Consumers can use their mobile devices to browse the Amazon website, make purchases, and complete the checkout process. The user-interface of the Amazon website for mobile devices is optimized for different screen sizes, and the elements on the page may be arranged differently compared to the desktop user-interface.³⁹⁴ For example, two options presented next to each other on the desktop interface may appear one on top of the other on the mobile interface (Exhibit 47).³⁹⁵

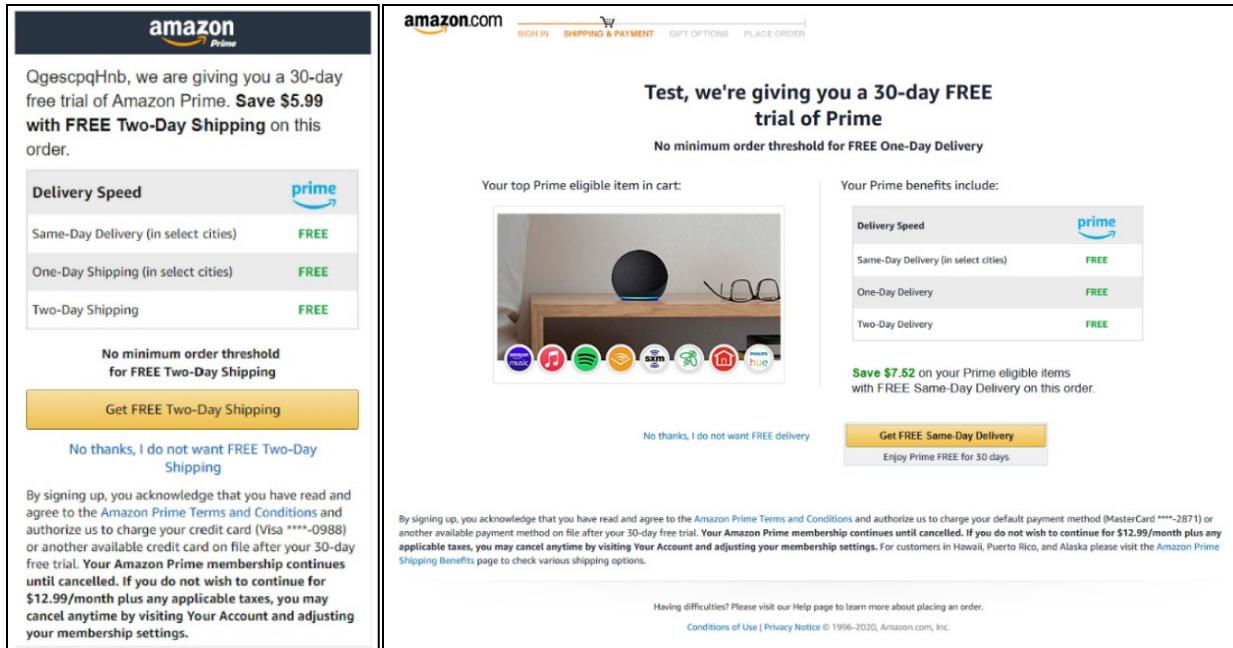
³⁹¹ “Purchase of Amazon Fire Stick,” November 2022, FTCAMZN_0023956–81 at 56.

³⁹² “Purchase of Amazon Fire Stick,” November 2022, FTCAMZN_0023956–81 at 56.

³⁹³ “Purchase of Amazon Fire Stick,” November 2022, FTCAMZN_0023956–81 at 63 (“Manage your subscriptions and transactions at the following sites. Prime membership amazon.com/mc”).

³⁹⁴ FTC Matter No. 2123050, Amazon’s Third CID Response, May 24, 2021, p. 25 (“Amazon has refined the process to enroll in Prime to address the inherent differences between different devices. For instance, mobile devices have smaller screens and, frequently, a different orientation than desktop monitors. For customers who use such devices, Amazon reorients the information vertically, so that the customers need only scroll up and down, rather than scrolling left to right, to accommodate the size of mobile screens.”).

³⁹⁵ For comparison, *see, e.g.*, Amended Complaint, Attachment B and Attachment M.

Exhibit 47 Comparison of Mobile and Desktop UPDP Pages


Source: Amended Complaint, Attachment M; "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 18.

250. According to the Amended Complaint, “[s]ince at least 2018, Prime upsells [sic] on the mobile checkout flow have mirrored those on desktop checkout, and have included the SOSP, UPDP, and the SPC.”³⁹⁶ Also, according to the Amended Complaint, “[i]n 2022, Amazon modified the mobile checkout enrollment flow.”³⁹⁷ The Amended Complaint refers to the mobile interface between 2018 and 2022 as the “past” interface and the interface modified in 2022 as the “current” interface. The Amended Complaint and attachment provide a description of the “past” mobile interface for the UPDP page,³⁹⁸ the SOSP flow,³⁹⁹ and the SPC flow,⁴⁰⁰ and a description of the “current” mobile interface for the UPDP page.⁴⁰¹

³⁹⁶ Amended Complaint, ¶ 77.

³⁹⁷ Amended Complaint, ¶ 91.

³⁹⁸ Amended Complaint, ¶ 86, Attachment M.

³⁹⁹ Amended Complaint, ¶¶ 80–81, Attachment L.

⁴⁰⁰ Amended Complaint, ¶ 87, Attachment N.

⁴⁰¹ Amended Complaint, ¶¶ 93–96, Attachment O.

251. The FTC alleges that Amazon mobile pages and flows contained “problematic elements” similar to the desktop pages and flows.⁴⁰² For these elements that the FTC identified on mobile pages and flows and that are similar to the desktop pages and flows, the issues I identified with the FTC allegations and discussed in length in Section VIII.B for the desktop pages and flows also apply to the mobile flows.⁴⁰³ For the FTC allegations specific to mobile pages and flows, I analyze them in detail below.

a. Scrolling Down is a Common Element of User Interface Design on Mobile Devices that Many Consumers are Likely Familiar With

252. The FTC alleges that “[n]avigating Prime upsells [sic] on mobile devices is more difficult than on a desktop” and that “Amazon often places material terms such as price and auto-renewal terms at the very bottom of the mobile page—past the point viewable on the screen unless the consumer scrolls down—where consumers are least likely to see this information.”⁴⁰⁴

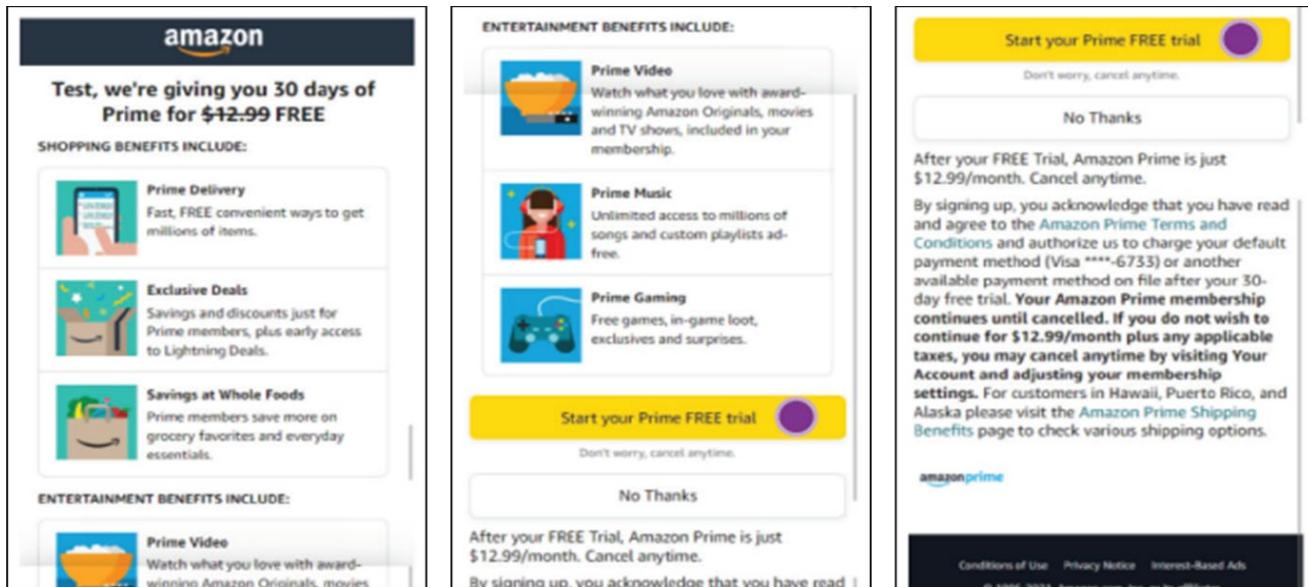
253. More specifically, regarding the old Mobile SOSP flow interface (Exhibit 48), the FTC alleges that “beneath ‘No Thanks,’ located within terms and conditions were Prime’s auto-renewal terms and monthly cost. To view this text, many consumers would need to scroll down on their mobile device.”⁴⁰⁵

⁴⁰² Amended Complaint, ¶¶ 79 (SOSP, old mobile interface), 85 (UPDP), 87 (SPC), 92 (all flows, 2022 mobile interface), 120–126 (Prime Video mobile).

⁴⁰³ As I discuss in Section VIII.B, I find that the FTC’s allegations do not consider the consumers’ prior experience and familiarity with the interface, are not tested, and do not represent an issue for the typical online consumer.

⁴⁰⁴ Amended Complaint, ¶ 78.

⁴⁰⁵ Amended Complaint, ¶ 83.

Exhibit 48 Old Mobile SOSP Flow – UPDP Page

Source: Amended Complaint, Attachment L, page 7.

254. The FTC does not consider that it is common and consistent with standard practices for mobile devices to present information on pages that are longer than the size of a mobile screen to require the user to scroll to navigate. User experience research shows that, in recent years, it has become increasingly common for user experience designers to create longer pages that might require scrolling, and consumers scroll the pages more frequently than they used to in the past.⁴⁰⁶ Indeed, the mobile pages shown in the Amended Complaint and its attachments follow design tips that encourage consumers to scroll, for example by not cramming information above the fold and by having content poking up above the fold to indicate that there is more content.⁴⁰⁷ Amazon

⁴⁰⁶ “Scrolling and Attention,” *Nielsen Norman Group*, April 15, 2018, <https://www.nngroup.com/articles/scrolling-and-attention/> (“But one user behavior that did change since the early days of the web is the tendency to scroll. In the beginning, users rarely scrolled vertically; but by 1997, as long pages became common, most people learned to scroll. ... Since 2010, with the advent of responsive design and minimalism, many designers have turned towards long pages (covering several ‘screenfuls’) with negative space. It’s time to ask, again, whether user behavior has changed due to the popularity of these web-design trends. ... In 2010, 80% of the viewing time was spent above the fold. Today, that number is only 57% — likely a consequence of the pervasiveness of long pages. What does that mean? First, it could be that, overall, designers are doing a good job of creating signifiers to counteract the illusion of completeness and to invite people to scroll. In other words, they are aware of the disadvantages of the long page and mitigate them to some extent. Second, it could mean that users have become conditioned to scroll — the prevalence of pages requiring scrolling has ingrained that behavior in us.”).

⁴⁰⁷ See, e.g., Amended Complaint, Attachments L, R, U; “The Fold Manifesto: Why the Page Fold Still Matters,” *Nielsen Norman Group*, February 1, 2015, <https://www.nngroup.com/articles/page-fold-manifesto/> (“Users can be encouraged to scroll by giving them good reason to do so. Visual elements can draw the eye down the page. Compelling content can draw the user in.”).

consumers who access the Amazon website from a mobile device are therefore likely to encounter pages that require them to scroll.

255. The FTC's allegations similarly do not consider that many consumers are likely familiar with scrolling down webpages on mobile devices. In fact, studies on online navigation and usability show that consumers spend a large amount of time reading online content "below the fold" that requires scrolling.⁴⁰⁸

256. Relatedly, the FTC complains about the "sticky footer"⁴⁰⁹ on the mobile UPDP page.⁴¹⁰ By way of background, consumers currently completing the checkout process on mobile devices might be shown a UPDP page before reviewing and completing the order.⁴¹¹ This page can be seen in Exhibit 49. The Mobile UPDP page is divided into two halves, with the top half displaying an offer for a 30-day free trial of Prime and the benefits of a Prime subscription, and the bottom half ("sticky footer") displaying the two options for either accepting or declining the offer, and showing information about the payment method, recurring monthly payment amount after the free trial, and how to cancel. Consumers can scroll down to view the full list of Prime benefits displayed in the top half of the page.⁴¹²

257. The FTC alleges that the "sticky footer" on the bottom half of the mobile UPDP page "render[s] only a portion of the top half visible unless the consumer scrolls down" and that "a consumer can enroll in Prime without viewing the portion of the page that the sticky footer hides."⁴¹³ The FTC also alleges that "additional information about Prime's 'Terms and Conditions' and 'Shipping Benefits' becomes visible in small text beneath the 'No thanks' link,"

⁴⁰⁸ "Scrolling and Attention," *Nielsen Norman Group*, April 15, 2018, <https://www.nngroup.com/articles/scrolling-and-attention/> ("In our most recent study, users spent about 57% of their page-viewing time above the fold. 74% of the viewing time was spent in the first two screenfuls...").

⁴⁰⁹ "Sticky Footers," *Mozilla*, https://developer.mozilla.org/en-US/docs/Web/CSS/Layout_cookbook/Sticky_footers ("A sticky footer pattern is one where the footer of your page 'sticks' to the bottom of the viewport in cases where the content is shorter than the viewport height"...[t]he sticky footer pattern needs to meet the following requirements: Footer sticks to the bottom of the viewport when content is short. If the content of the page extends past the viewport bottom, the footer then sits below the content as normal"); "Sticky Headers and Footers: Enhance User Experience with Fixed Elements," *Medium*, July 22, 2023, <https://medium.com/@stheodorejohn/sticky-headers-and-footers-enhance-user-experience-with-fixed-elements-a728acfb680> ("creating sticky headers or footers...can greatly improve the navigation and accessibility of a website...[and can be used to] ensure[] seamless browsing and easy access to important elements... provide consistent navigation or essential information...enhancing user interaction and reducing friction").

⁴¹⁰ Amended Complaint, ¶ 96.

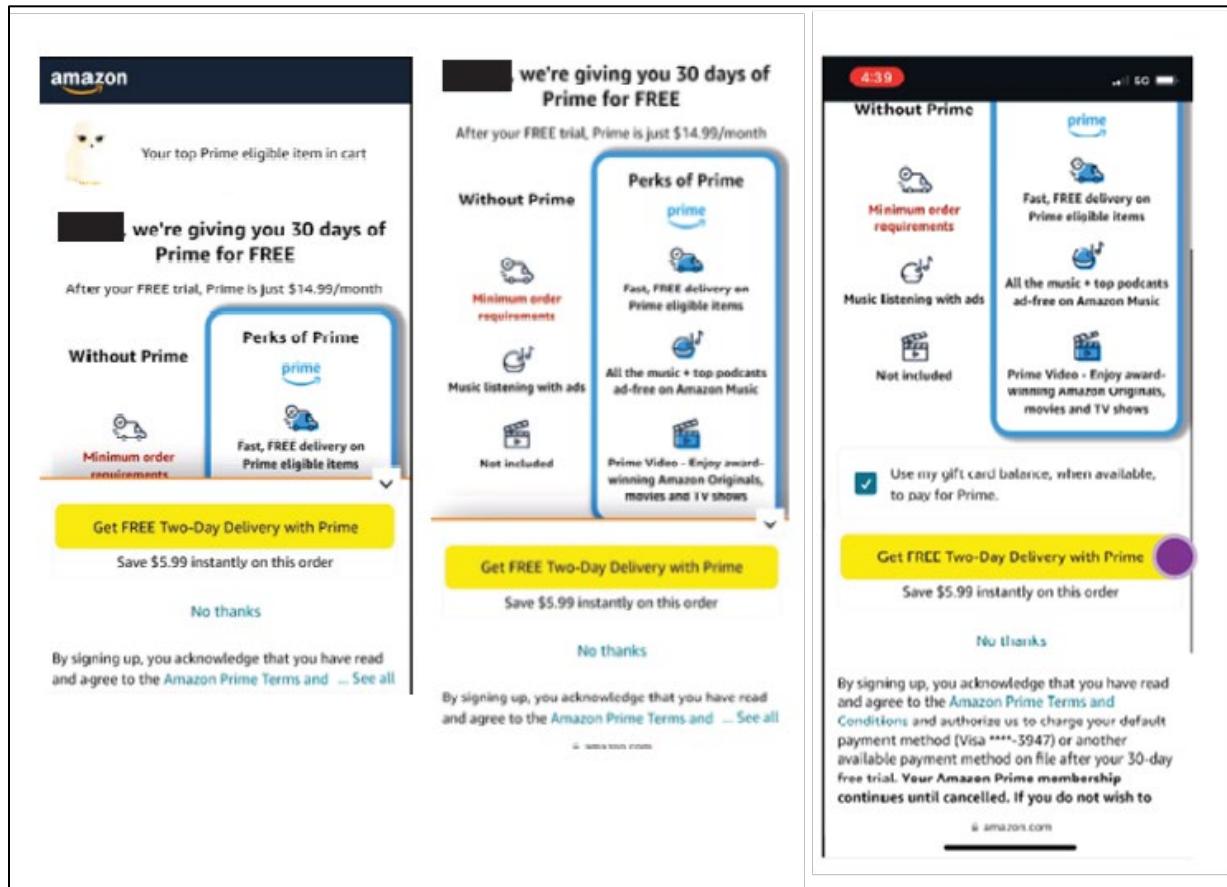
⁴¹¹ Not all the consumers completing the checkout process on mobile devices would be shown a UPDP page. *See, e.g.*, Amended Complaint, Attachment N.

⁴¹² Amended Complaint, ¶ 99.

⁴¹³ Amended Complaint, ¶¶ 96, 98.

and that “[c]onsumers cannot view the full text beneath the ‘No thanks’ link without scrolling or clicking the sticky footer arrow.”⁴¹⁴ Regarding the presence of the arrow that shows the detailed information, the FTC also claims that, if “a consumer clicks the button while attempting to click the adjacent sticky footer arrow, Amazon enrolls the consumer in Prime.”⁴¹⁵

Exhibit 49 Current Mobile UPDP page



Source: Amended Complaint, Attachment O, page 5.

Note: The third screenshot from the original attachment in the Amended Complaint has been removed for brevity and its similarities to the second screenshot.

258. The FTC’s claim that consumers can enroll in Prime “without viewing the portion of the page that the sticky footer hides” implicitly assumes that all the information should be presented

⁴¹⁴ Amended Complaint, ¶¶ 100, 102.

⁴¹⁵ Amended Complaint, ¶ 101.

at once instead of being available on the page if the consumer wants to read it.⁴¹⁶ In fact, as shown in Exhibit 49, the footer shows a “See all” link that expands the footer and shows all the remaining information, and the information is presented in a way that is familiar and consistent with mobile navigation. Even without expanding the sticky footer, I understand that Amazon’s mobile flows, per policy, require that price and duration of the plan are displayed “above the fold,” so consumers can review those terms without needing to scroll.⁴¹⁷

259. Consumers are familiar with details being presented over multiple screens or pages online. As discussed in Section VIII.C in the context of progressive disclosure, too much information presented on a single page might be difficult for consumers to process, and consumers can benefit from a gradual introduction of information. Second, consumers are familiar with scrolling when using mobile devices. In fact, research on consumer experience states that consumers “are used to scrolling with a vertical control type on touch-enabled devices.”⁴¹⁸

b. The Small Font Size on Mobile Pages Is Practical on Mobile Devices

260. The FTC alleges that the mobile UPDP page (shown in Exhibit 50) “disclosed some terms, but only at the bottom of the screen in a block of small print text...”⁴¹⁹ and that, more broadly,

⁴¹⁶ Amended Complaint, ¶ 98.

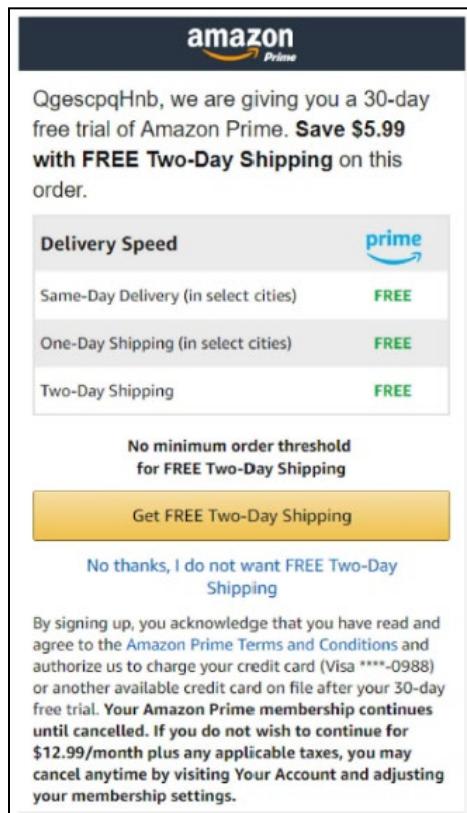
⁴¹⁷ “Worldwide Prime Sign-Up Requirements,” June 5, 2021, AMZN_00003616–19 at 16 (“On mobile devices or other small screen devices, at least some of the *Legal Disclaimers* (preferable the first two lines) must appear on the sign-up screen without scrolling (so users know they are agreeing to a Legal Disclaimers when they push the button). This can be applied by the Sticky Footer. The **price/duration** must **always** be mentioned above the fold, even for free trial offers.”); Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, pp. 18, 29 (“Amazon has adopted policies that information presented on mobile devices or other small screens should always include the price and duration of the plan ‘above the fold’ so that the customer can easily review them at the time the customer is asked to make a decision.”).

⁴¹⁸ Kim, J. et al. (2016), “Pagination versus Scrolling in Mobile Web Search,” *Proceedings of the 25th ACM International on Conference on Information and Knowledge Management*, 751–760 at p. 752 (“Although people are familiar with turning the pages of a book horizontally, and swiping horizontally between screens in weather apps for example, they are used to scrolling with a vertical control type on touch-enabled devices, as this is the only mechanism provided by search engines.”). Online users using desktop devices are also familiar with scrolling. *See, e.g.*, “Scrolling and Attention,” *Nielsen Norman Group*, April 15, 2018, <https://www.nngroup.com/articles/scrolling-and-attention/> (“But one user behavior that did change since the early days of the web is the tendency to scroll. In the beginning, users rarely scrolled vertically; but by 1997, as long pages became common, most people learned to scroll. ... Since 2010, with the advent of responsive design and minimalism, many designers have turned towards long pages (covering several ‘screenfuls’) with negative space.”).

⁴¹⁹ Amended Complaint, ¶ 86.

“[o]n mobile devices, consumers are also more likely to select a prominent option without scrutinizing fine print.”⁴²⁰

Exhibit 50 Old Mobile UPDP Page



Source: Amended Complaint, Attachment M.

261. The FTC claims against the use of small font size in the mobile UI contradicts its claims against the use of scrolling due to pages too large to fit a single screen of a mobile device. In fact, if Amazon was using a larger font on the page, the page would become even longer and it would require further scrolling, and that, according to the Amended Complaint, would make it more difficult to navigate the mobile flows.

⁴²⁰ Amended Complaint, ¶ 78.

262. In addition, Amazon accommodates the smaller screen of mobile devices by reorienting information vertically so that consumers need only to scroll up and down.⁴²¹ Material terms of the Prime offer are visible without the need to scroll horizontally.⁴²²

2. Mobile Cancellation Flows

263. Consumers can cancel their Prime membership using their mobile devices. To do so, consumers enter the mobile equivalent of the Desktop Prime Central cancellation flow or the mobile equivalent of searching for membership cancellation using the search bar.

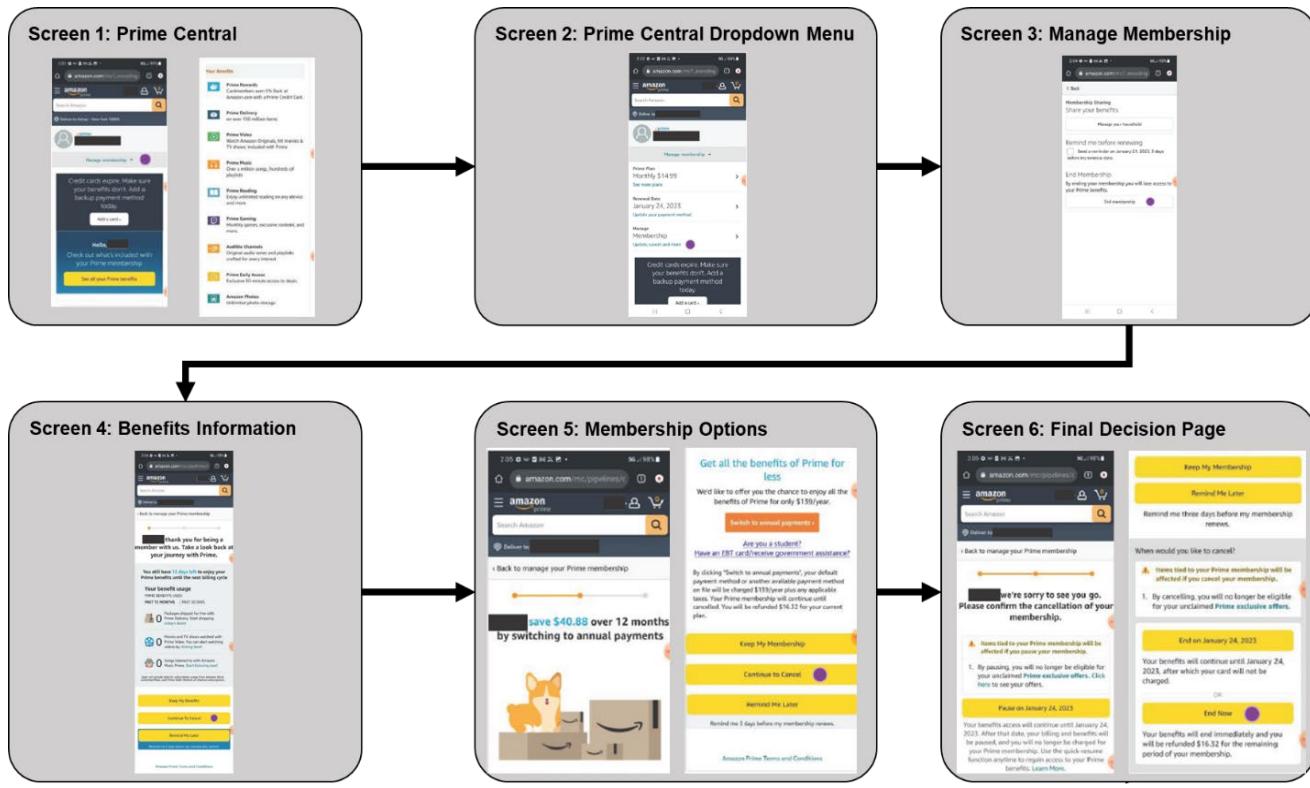
264. Like the Desktop Prime Central cancellation flow, the Mobile equivalent of the Prime Central cancellation flow starts from the Prime Central page on mobile devices. Exhibit 51 outlines the Mobile Prime Central cancellation flow. Amazon consumers can reach this page from any Amazon mobile webpage by selecting “Your Prime Membership” from the “Your Account” dropdown menu triggered by clicking the figure icon on the top right of the interface.⁴²³ The top of the page has a “Manage membership” dropdown menu with three options arranged vertically, and each opens a new page: (1) Prime Plan, (2) Renewal Date, and (3) Manage Membership. Choosing “Manage Membership” would open a new page with three options arranged vertically: (1) Share your benefits, (2) Remind me before renewing, and (3) End Membership. Choosing “End Membership” continues the cancellation process, which follows Screen 2 to Screen 4 of the Desktop Prime Central cancellation flow with the difference that the buttons on each page on mobile devices are arranged vertically instead of horizontally with “Continue to Cancel” located in the middle, below “Keep My Benefits” and above “Remind Me Later.”

⁴²¹ Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, p. 18 (“Amazon reorients the information vertically, so that the customers need only scroll up and down, rather than scrolling left to right, to accommodate the size of mobile screens.”).

⁴²² Amazon’s May 3, 2024 Objections and Responses to the FTC’s First Set of Interrogatories, pp. 18, 29.

⁴²³ See also Amended Complaint, Attachment R.

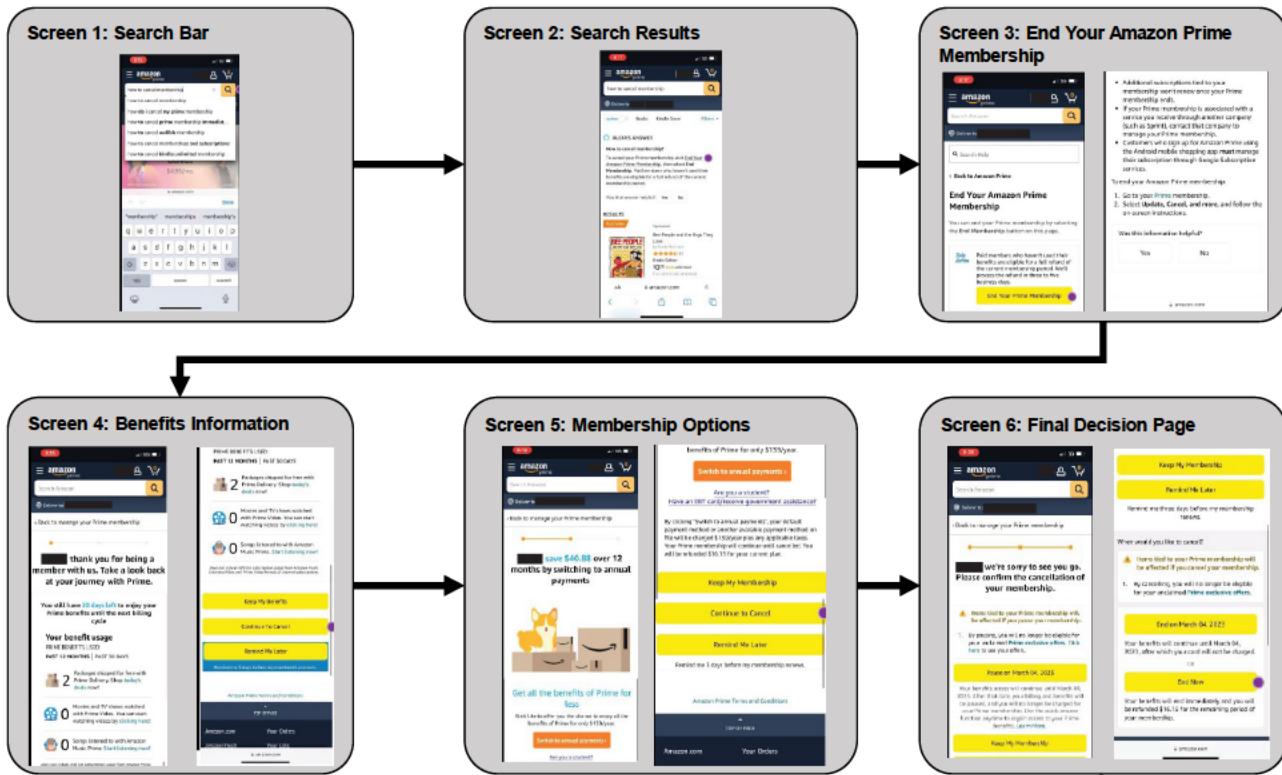
Exhibit 51 Mobile Prime Central Cancellation Flow



Source: Adapted from Amended Complaint, Attachment R, page 3–8.

265. The desktop and mobile devices have the same cancellation flow of using the search bar to search for membership cancellation. Exhibit 52 outlines the Mobile Search Bar cancellation flow.

Exhibit 52 Mobile Search Bar Cancellation Flow



Source: Adapted from Amended Complaint, Attachment S, pages 1–6.

266. The Amended Complaint alleges that “[s]imilar to the Iliad Flow on desktop, the Iliad Flow on mobile was also difficult for consumers to locate and presented a complex array of options across multiple pages. Cancelling via the Iliad Flow on a mobile device was an eight-page, eight-click minimum process.”⁴²⁴

267. As mobile cancellation flows closely follow the desktop cancellation flows discussed above, for the same reason that the desktop cancellation flows do not substantiate the FTC’s allegations of “Dark Patterns,” mobile device cancellation flows do not substantiate such allegations either.⁴²⁵

⁴²⁴ Amended Complaint, ¶ 156.

⁴²⁵ See Section VIII.C.

IX. The At-Issue UI Design Elements Are Commonly Used Online and Are Likely Familiar to Many Online Consumers

268. The FTC's allegations that the at-issue UI design elements in Amazon's Prime enrollment and cancellation flows (which allegedly include "dark patterns") mislead consumers do not properly consider consumers' online experience. As I have described above in Section VI, an important aspect of a consumer's online experience is the feedback loop that links previous experiences with subsequent online experiences. In other words, what consumers learn from their previous experiences influences how they perceive information in subsequent online experiences. The prominence of this feedback loop is more pronounced than ever in today's digital world, given that approximately 85% of Americans go online daily, over 80% of American internet users shop online annually, and a typical American spends close to seven hours online per day.⁴²⁶ To the extent the UI design elements at-issue⁴²⁷ are commonly used online, these statistics suggest that many consumers are likely to have encountered them (or those similar to them) in various online contexts, and such prior encounters would have informed how consumers would interact with the UI design elements at-issue in Amazon's Prime enrollment and cancellation flows.

269. As part of this report, and as I previewed, I conducted an analysis to assess whether consumers are likely to have encountered the UI design elements at-issue (or those similar to them) in this matter. Specifically, I performed two analyses in the online context. First, I examined the desktop enrollment and cancellation processes of top paid digital membership/subscription programs⁴²⁸ to assess whether UI design elements at-issue in this matter (or those similar to them) were present. I found that the majority of the same or similar UI design elements at-issue were commonly used in the desktop enrollment and cancellation processes of these top paid digital membership/subscription programs. Second, I reviewed the top 30 most visited U.S. government websites as well as the FTC website to assess whether the

⁴²⁶ "Data Report: How Americans Use the Internet," *Allconnect*, March 15, 2023, <https://www.allconnect.com/blog/data-report-how-americans-use-the-internet>; "Penetration Rate of E-Commerce in the U.S. 2020-2029," *Statista*, August 26, 2024, <https://www.statista.com/statistics/273958/digital-buyer-penetration-in-the-united-states/>, accessed on October 30, 2024.

⁴²⁷ I describe the UI design elements at-issue below in detail.

⁴²⁸ By "paid digital membership/subscription programs," I refer to paid programs that can be subscribed online with recurrent fees that give access to digital services (e.g., streaming), access to the content of a website or app, and/or discounts or benefits to purchases made through a website, an app, and/or in physical stores.

same or similar UI design elements at-issue in this matter that are applicable to government websites, were present on those government websites.⁴²⁹ I found that the same or similar UI design elements at-issue that are applicable to government websites, were commonly used by the government websites I analyzed.⁴³⁰ The results of my two analyses suggest that these UI design elements at-issue (or those similar to them) are commonly used online, and many consumers are likely to be familiar with them independent of their interactions with Amazon website.⁴³¹ As such, many consumers' prior online experiences would likely provide additional context for interpreting and understanding the UI design elements at-issue as they go through a particular shopping experience on the Amazon website.

A. The UI Design Elements At-Issue (or Those Similar to Them) Are Commonly Used by Popular Paid Digital Membership/Subscription Programs

270. To assess whether the UI design elements used by Amazon are commonly used online, I reviewed the desktop enrollment processes and the desktop cancellation processes of 48 popular paid digital membership/subscription programs. I found that the UI design elements at-issue (or those similar to them) were commonly used by these programs.

1. Methodology

271. I started my analysis by identifying the most subscribed categories of paid digital membership/subscription programs based on a survey of 1,005 American consumers commissioned by Forbes Advisor and conducted by market research company Prolific.⁴³² I then reviewed categories subscribed to by at least 10% of survey respondents. This yielded ten categories for analysis, including streaming, delivery, music, cloud storage, gaming, food

⁴²⁹ See **Appendix D** for the determination of the top 30 most visited government websites.

⁴³⁰ Two of the 8 at-issue UI design elements for the enrollment processes and none of the at-issue UI design elements for the cancellation processes were applicable to government websites. A detailed description of my methodology on UI design elements applicable to government websites can be found in **Appendix D**.

⁴³¹ I note that in its Amended Complaint, the FTC does not clarify the relevant characteristics of the design elements found on Amazon Prime's enrollment and cancellation processes that it claims renders these design elements "manipulative, coercive, or deceptive user-interface designs known as 'dark patterns[.]'" Thus, I rely on the FTC's descriptions in the Amended Complaint and my understanding of the design elements and the particular characteristics of those design elements that the FTC objects to for identifying the metrics used in my analysis. Amended Complaint, ¶ 2.

⁴³² See "The Digital Subscriptions Americans Are Most And Least Likely To Cut In 2023," *Forbes*, January 12, 2023, <https://www.forbes.com/advisor/personal-finance/digital-subscriptions-most-least-likely-to-cut-2023/>.

delivery, live TV, home security, news, and cybersecurity. Within each category, I identified the top five paid digital membership/subscription programs by the size of their subscriber base (where information was available), excluding Amazon Prime and other Amazon-owned or affiliated paid digital membership/subscriptions (e.g., Prime Video, Amazon Music, Ring, Grubhub).⁴³³ In total, I reviewed the desktop enrollment flows and the desktop cancellation flows of 48 paid digital membership/subscription programs for UI design elements at-issue the FTC focuses on in Amazon's enrollment and cancellation flows. Exhibit 53 shows the list of popular paid digital membership/subscription programs I analyzed.

⁴³³ Due to differences in the industry or business model of the paid digital membership/subscription programs, a single metric was not available or applicable to rank the paid digital membership/subscription consistently across all categories. For eight out of ten program categories, I identified the top five paid digital membership/subscription programs by the size of their subscriber base. Information on subscriber base was not available for the remaining two categories, i.e., Delivery and Food Delivery. For those two categories, I identified the top paid digital membership/subscription programs based on other available metrics that approximates the size of their subscriber base, such as market share based on number of apps downloaded by consumers, or ecommerce sales in dollars. Using this methodology, I was able to identify the top five paid digital subscriptions in all categories but Live TV and Home Security, for which I was only able to identify the top four paid digital subscriptions due to limited data availability. As a result, the sample consists of 48 paid digital membership/subscription programs. Detailed information on how I identified the top programs for each category can be found in **Appendix D**.

Exhibit 53 Paid Digital Membership/Subscription Programs Reviewed

No.	Subscription Service
A Streaming	
A.1	Netflix
A.2	Disney+
A.3	Max
A.4	Paramount+
A.5	Hulu
B Delivery	
B.1	Walmart+
B.2	Target Circle 360
B.3	My Best Buy Plus
B.4	Costco
B.5	Kroger Boost
C Music	
C.1	Spotify Premium
C.2	Apple Music
C.3	YouTube Music Premium
C.4	SiriusXM
C.5	Pandora
D Cloud Storage	
D.1	Google One (for Google Drive)
D.2	Dropbox Plus
D.3	Microsoft 365 (for OneDrive)
D.4	Box
D.5	Mega
E Gaming	
E.1	PlayStation Plus (PS Plus)
E.2	Nintendo Switch Online
E.3	Xbox Game Pass
E.4	NV DIA GeForce Now
E.5	EA Play
F Food Delivery	
F.1	DoorDash DashPass
F.2	Uber One (for Uber Eats)
F.3	Instacart+
F.4	7-Eleven GoldPass
F.5	Hello Fresh
G Live TV	
G.1	YouTube TV
G.2	Hulu TV
G.3	Sling TV
G.4	Fubo TV
H Home Security	
H.1	Nest Aware (for Google Nest)
H.2	Wyze
H.3	SimpliSafe
H.4	Xfinity
I News	
I.1	New York Times
I.2	Wall Street Journal
I.3	Washington Post
I.4	Gannett/USA Today
I.5	Substack
J Cybersecurity	
J.1	McAfee
J.2	Malwarebytes
J.3	Avast
J.4	AVG
J.5	Webroot

Note: In the Delivery category above, I understand "Delivery" from the Forbes Advisor survey to refer to paid digital/membership subscription programs related to the delivery of ecommerce retail goods, such as Amazon Prime and Walmart+, since they were the examples specified in the survey.

272. For the enrollment process, I assessed whether these programs offer a free trial and whether the 8 UI design elements at-issue the FTC focuses on for the enrollment process were present. I understand that the FTC does not allege the free trial that automatically converts to a paid membership if consumers do not cancel before the end of the trial period itself is a “dark pattern.” However, I also collected this information to provide context on the prevalence of such offers, as many UI design elements at-issue are related to the existence in Amazon’s checkout process of a free trial offer that automatically converts to a paid membership if consumers do not cancel before the end of the free trial period. In total, I evaluated whether the following UI design elements (or those similar to them) were present in the enrollment processes for the programs I reviewed:

1. The company offers a free trial that automatically renews and charges payment method if not cancelled before the end of the trial period,
2. An overlay is used to make an offer for the paid digital membership/subscription program,⁴³⁴
3. The benefits of the paid digital membership/subscription program are repeated multiple times on a given webpage,⁴³⁵
4. The benefits of the paid digital membership/subscription program are repeated across multiple webpages,⁴³⁶
5. Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage,⁴³⁷
6. Information about auto-renewal is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program,⁴³⁸
7. Information about the price of the paid digital membership/subscription program is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program,⁴³⁹
8. Information about the benefits of the paid digital membership/subscription program is presented using larger or differently colored text or other visual elements compared to other text on the same webpage,⁴⁴⁰

⁴³⁴ Amended Complaint, ¶ 38.

⁴³⁵ Amended Complaint, ¶¶ 39, 44.a–c, 45.a, 71–73, 76, 231.b.

⁴³⁶ Amended Complaint, ¶¶ 54–59, 64–76, 231.b.

⁴³⁷ Amended Complaint, ¶¶ 42, 44.c–d, 50, 66, 74, 231.c–d.

⁴³⁸ Amended Complaint, ¶¶ 43, 48, 54.

⁴³⁹ Amended Complaint, ¶¶ 43, 48, 54.

⁴⁴⁰ Amended Complaint, ¶ 231.b.

9. Call-to-action feature to complete enrollment in the paid digital membership/subscription program or a free trial of the program is the same color scheme as other call-to-action features encountered by a consumer prior to completing enrollment.⁴⁴¹

273. For the cancellation process, I assess whether the 7 UI design elements within Amazon's cancellation flow that the FTC focuses on were present. I note that the FTC alleges that Amazon made the ingress point to Amazon's cancellation flow difficult for consumers to locate, citing it as the "obstruction" "dark pattern."⁴⁴² Counsel asked me to analyze two distinct metrics to evaluate the ingress point to desktop cancellation flow: (a) whether consumers can advance to desktop cancellation flow from the "manage my account" page, and (b) whether consumers can start the cancellation flow the website's landing page. In total, I evaluated whether the following UI design elements (or those similar to them) were present in the cancellation process:

1. The "manage my account" webpage includes a feature that a consumer can click to advance to the cancellation flow,⁴⁴³
2. The website's landing page does not include a feature the consumer can click to start the cancellation flow,⁴⁴⁴
3. The cancellation flow involves navigating multiple webpages,⁴⁴⁵
4. Call-to-action features for alternatives to immediately cancelling the paid digital membership/subscription program (or a free trial of the program) are present in the cancellation flow,⁴⁴⁶
5. The cancellation flow mentions benefits of the paid digital membership/subscription program,⁴⁴⁷
6. The cancellation flow includes warning icons,⁴⁴⁸
7. Call-to-action feature to cancel the paid digital membership/subscription program (or a free trial of the program) and the call-to-action feature to remain enrolled in the program that are presented on the same page of the cancellation flow differ in color.⁴⁴⁹

⁴⁴¹ Amended Complaint, ¶ 231.a.

⁴⁴² Amended Complaint, ¶¶ 131, 231.c

⁴⁴³ Amended Complaint, ¶¶ 131–133.

⁴⁴⁴ Amended Complaint, ¶ 231.c.ii.

⁴⁴⁵ Amended Complaint, ¶¶ 154, 231.a.ii.

⁴⁴⁶ Amended Complaint, ¶¶ 147–153, 231.d.iii.

⁴⁴⁷ Amended Complaint, ¶ 231.c.ii.

⁴⁴⁸ Amended Complaint, ¶ 231.b.ii.

⁴⁴⁹ Amended Complaint, ¶ 231.d.iii.

274. A detailed description of my methodology and the coding instructions can be found in **Appendices D and D.1.**

2. Findings

275. I summarize my findings for enrollment processes in Exhibit 54 and Exhibit 55 and for cancellation processes in Exhibit 74. Specifically, I found that nearly all of the UI design elements at-issue (or those similar to them) were present in a majority of the enrollment and cancellation processes of the 48 popular paid digital membership/subscription programs I analyzed.⁴⁵⁰ The findings suggest that the at-issue UI design elements (or those similar to them) are commonly used online.

a. Findings from the Desktop Enrollment Flow Review

276. As shown in Exhibit 54 and Exhibit 55, a majority of the popular paid digital membership/subscription programs I analyzed use UI design elements at-issue (or those similar to them) that the FTC focuses on in its Amended Complaint. Specifically, of the 8 UI design elements at-issue in the enrollment process, all 8 of them (or those similar to them) were present in more than half of the paid digital membership/subscription programs I reviewed.⁴⁵¹ Below, I discuss my findings for each at-issue UI design element for the desktop enrollment flow.

⁴⁵⁰ Specifically, of the 8 UI design elements at-issue in the enrollment process (or those similar to them), all 8 of them (or those similar to them) were present in more than half of the paid digital membership/subscription programs I reviewed. 6 of the 7 UI design elements at-issue in Amazon's cancellation processes (or those similar to them) were present in the cancellation processes of more than half of the paid digital membership/subscription programs I reviewed.

⁴⁵¹ These 8 UI design elements at-issue for the enrollment process excludes "The company offers a free trial that automatically renews and charges payment method if not cancelled before the end of the trial period." I understand that the FTC does not allege that the free trial that automatically converts to a paid membership if consumers do not cancel before the end of the trial period itself is a "dark pattern."

Exhibit 54 Desktop Enrollment Flow Comparative Analysis

No.	Service	Website Category ^[2]	Company offers a free trial that automatically renews	Overlay is used to make an offer for the program	Benefits of the program are repeated multiple times on a given webpage	Benefits of the program are repeated across multiple webpages
	Amazon Prime		✓	✓	✓	✓
	UPDP		✓	✓	✓	✓
	SOSP		✓	✓	✓	✓
	SPC ^[1]		✓	✓	✓	✓
	TrueSPC ^[1]		✓	✓	✓	✓
	A Streaming					
A.1	Netflix	Category 3	✗	✓	✓	✓
A.2	Disney+	Category 3	✗	✓	✓	✓
A.3	Max	Category 3	✗	✓	✓	✓
A.4	Paramount+	Category 3	✓	✓	✓	✓
A.5	Hulu	Category 3	✓	✗	✓	✗
	B Delivery					
B.1	Walmart+	Category 1	✓	✓	✓	✓
B.2	Target Circle 360	Category 1	✓	✗	✓	✓
B.3	My Best Buy Plus	Category 1	✗	✓	✓	✓
B.4	Costco	Category 1	✗	✗	✓	✓
B.5	Kroger Boost	Category 1	✓	✓	✓	✓
	C Music					
C.1	Spotify Premium	Category 2	✓	✗	✓	✗
C.2	Apple Music	Category 2	✓	✓	✗	✓
C.3	YouTube Music Premium	Category 2	✓	✓	✓	✓
C.4	SiriusXM	Category 3	✓	✓	✓	✓
C.5	Pandora	Category 2	✓	✓	✓	✓
	D Cloud Storage					
D.1	Google One (for Google Drive)	Category 2	✗	✗	✓	✓
D.2	Dropbox Plus	Category 2	✓	✗	✓	✓
D.3	Microsoft 365 (for OneDrive)	Category 2	✗	✓	✓	✓
D.4	Box	Category 2	✗	✓	✓	✓
D.5	Mega	Category 2	✗	✓	✓	✓
	E Gaming					
E.1	PlayStation Plus (PS Plus)	Category 1	✗	✓	✓	✓
E.2	Nintendo Switch Online	Category 1	✓	✗	✓	✓
E.3	Xbox Game Pass	Category 1	✗	✓	✓	✓
E.4	NVIDIA GeForce Now	Category 2	✗	✓	✓	✓
E.5	EA Play	Category 1	✗	✓	✓	✓
	F Food Delivery					
F.1	DoorDash DashPass	Category 1	✓	✓	✓	✓
F.2	Uber One (for Uber Eats)	Category 1	✓	✗	✓	✓
F.3	Instacart+	Category 1	✓	✓	✓	✓
F.4	7-Eleven GoldPass	Category 1	✓	✗	✓	✓
F.5	Hello Fresh	Category 3	✗	✗	✓	✓
	G Live TV					
G.1	YouTube TV	Category 3	✓	✗	✓	✓
G.2	Hulu TV	Category 3	✓	✗	✓	✗
G.3	Sling TV	Category 3	✗	✗	✓	✓
G.4	Fubo TV	Category 3	✓	✓	✓	✓
	H Home Security					
H.1	Nest Aware (for Google Nest)	Category 1	✓	✗	✓	✓
H.2	Wyze	Category 1	✓	✗	✓	✓
H.3	SimpliSafe	Category 1	✓	✓	✓	✓
H.4	Xfinity	Category 3	✗	✗	✓	✓
	I News					
I.1	New York Times	Category 2	✗	✓	✗	✓
I.2	Wall Street Journal	Category 2	✗	✓	✓	✓
I.3	Washington Post	Category 2	✗	✓	✓	✓
I.4	Gannett/USA Today	Category 2	✗	✓	✗	✓
I.5	Substack	Category 2	✗	✗	✓	✓
	J Cybersecurity					
J.1	McAfee	Category 3	✗	✗	✓	✓
J.2	Malwarebytes	Category 3	✗	✓	✓	✓
J.3	Avast	Category 3	✓	✗	✓	✓
J.4	AVG	Category 3	✗	✗	✗	✗
J.5	Webroot	Category 3	✗	✗	✓	✓
Total Subscription Programs Reviewed [A]		48	48	48	48	
# of Programs Not Applicable for Analysis [B]		0	0	0	0	
# of Programs Applicable for Analysis [C] = [A] - [B]		48	48	48	48	
# of Programs That Are Consistent with Amazon's Practices [D]		23	27	44	44	
% of Programs That Are Consistent with Amazon's Practices [E] = [D] / [C]		48%	56%	92%	92%	

Source: See Appendix D, Appendix E.

Note:

[1] In this table, I considered versions of Amazon's SPC and TrueSPC flows that insert the UPDP page as a Prime enrollment offer (*see Amended Complaint, ¶ 66, Attachment I (TrueSPC flow) and “Prime Offers in Checkout Re-Imagined Mini PR & FAQ,” May 27, 2020, AMZN_00040706-28 at 17*). The UPDP within these two flows was used to evaluate the following UI design elements: “An overlay is used to make an offer for the paid digital membership/subscription program” and “Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage.”

[2] Under “Website Category,” the 48 companies whose enrollment flows I analyzed can be divided into three categories based on the types of products/services they offer: (1) companies that also sell products or services other than the paid digital membership/subscription programs (e.g., Walmart, Best Buy) (“Category 1”), (2) companies that use a freemium pricing model (i.e., companies that offer a free version of their product or service alongside paid digital membership/subscription programs for premium content and services (e.g., YouTube Music, Wall Street Journal)) (“Category 2”), and (3) companies that only offer paid digital membership/subscription programs for streaming content or the services they offer (e.g. Netflix, Xfinity) (“Category 3”).

See Appendix D for more details.

Exhibit 55 Desktop Enrollment Flow Comparative Analysis, cont.

No.	Service	Website Category ^[2]	Call-to-action feature to decline the offer for the program differs in color and/or size from the call-to-action feature to accept the offer	Information about auto-renewal is disclosed before a consumer completes enrollment in the program	Information about the price of the program is disclosed before a consumer completes enrollment in the program	Benefits of the program are presented using larger or differently colored text or other visual elements compared to other text on the same webpage	Call-to-action feature to complete enrollment in the program is the same color scheme as prior call-to-action features
	Amazon Prime		✓	✓	✓	✓	✓
	UPDP		✓	✓	✓	✓	✓
	SOSP		✓	✓	✓	✓	✓
	SPC ^[1]		✓	✓	✓	✓	✓
	TrueSPC ^[1]		✓	✓	✓	✓	✓
A Streaming							
A.1	Netflix	Category 3	No decline option	✓	✓	✓	✓
A.2	Disney+	Category 3	No decline option	✓	✓	✓	✓
A.3	Max	Category 3	No decline option	✓	✓	✓	✓
A.4	Paramount+	Category 3	No decline option	✓	✓	✓	✓
A.5	Hulu	Category 3	No decline option	✓	✓	✓	✗
B Delivery							
B.1	Walmart+	Category 1	✓	✓	✓	✓	✓
B.2	Target Circle 360	Category 1	No decline option	✓	✓	✓	✓
B.3	My Best Buy Plus	Category 1	✗	✓	✓	✓	✓
B.4	Costco	Category 1	✗	✓	✓	✓	✗
B.5	Kroger Boost	Category 1	No decline option	✓	✓	✓	✓
C Music							
C.1	Spotify Premium	Category 2	No decline option	✓	✓	✓	✗
C.2	Apple Music	Category 2	✓	✓	✓	✓	✓
C.3	YouTube Music Premium	Category 2	✓	✓	✓	✓	✓
C.4	SiriusXM	Category 3	No decline option	✓	✓	✓	✓
C.5	Pandora	Category 2	No decline option	✓	✓	✓	✓
D Cloud Storage							
D.1	Google One (for Google Drive)	Category 2	No decline option	✓	✓	✓	✓
D.2	Dropbox Plus	Category 2	No decline option	✓	✓	✓	✓
D.3	Microsoft 365 (for OneDrive)	Category 2	No decline option	✓	✓	✓	✓
D.4	Box	Category 2	No decline option	✓	✓	✓	✓
D.5	Mega	Category 2	✓	✓	✓	✓	✓
E Gaming							
E.1	PlayStation Plus (PS Plus)	Category 1	No decline option	✓	✓	✓	✓
E.2	Nintendo Switch Online	Category 1	No decline option	✓	✓	✓	✓
E.3	Xbox Game Pass	Category 1	No decline option	✓	✓	✓	✓
E.4	NVIDIA GeForce Now	Category 2	No decline option	✓	✓	✓	✓
E.5	EA Play	Category 1	No decline option	✓	✓	✓	✓
F Food Delivery							
F.1	DoorDash DashPass	Category 1	✓	✓	✓	✓	✓
F.2	Uber One (for Uber Eats)	Category 1	No decline option	✓	✓	✓	✓
F.3	Instacart+	Category 1	✓	✓	✓	✓	✗
F.4	7-Eleven GoldPass	Category 1	No decline option	✓	✓	✓	✓
F.5	Hello Fresh	Category 3	No decline option	✓	✓	✓	✓
G Live TV							
G.1	YouTube TV	Category 3	No decline option	✓	✓	✓	✓
G.2	Hulu TV	Category 3	No decline option	✓	✓	✓	✗
G.3	Sling TV	Category 3	No decline option	✓	✓	✓	✓
G.4	Fubo TV	Category 3	No decline option	✓	✓	✓	✓
H Home Security							
H.1	Nest Aware (for Google Nest)	Category 1	No decline option	✓	✓	✓	✓
H.2	Wyze	Category 1	No decline option	✓	✓	✗	✓
H.3	SimpliSafe	Category 1	✓	✓	✓	✓	✓
H.4	Xfinity	Category 3	No decline option	✓	✓	✓	✓
I News							
I.1	New York Times	Category 2	✓	✓	✓	✓	✓
I.2	Wall Street Journal	Category 2	No decline option	✓	✓	✓	✓
I.3	Washington Post	Category 2	No decline option	✓	✓	✓	✓
I.4	Gannett/USA Today	Category 2	No decline option	✓	✓	✗	✓
I.5	Substack	Category 2	No decline option	✓	✓	✓	✗
J Cybersecurity							
J.1	McAfee	Category 3	No decline option	✓	✓	✓	✓
J.2	Malwarebytes	Category 3	✓	✓	✓	✓	✓
J.3	Avast	Category 3	No decline option	✓	✓	✓	✓
J.4	AVG	Category 3	No decline option	✓	✓	✓	✓
J.5	Webroot	Category 3	No decline option	✓	✓	✓	✓
Total Subscription Programs Reviewed [A]							
			48	48	48	48	48
# of Programs Not Applicable for Analysis [B]							
			37	0	0	0	0
# of Programs Applicable for Analysis [C] = [A] - [B]							
			11	48	48	48	48
# of Programs That Are Consistent with Amazon's Practices [D]							
			9	48	48	46	42
% of Programs That Are Consistent with Amazon's Practices [E] = [D] / [C]							
			82%	100%	100%	96%	88%

Source: See Appendix D, Appendix E.

Note:

[1] In this table, I considered versions of Amazon's SPC and TrueSPC flows that insert the UPDP page as a Prime enrollment offer (see Amended Complaint, ¶ 66, Attachment I (TrueSPC flow) and "Prime Offers in Checkout Re-Imagined Mini PR & FAQ," May 27, 2020, AMZN_00040706-28 at 17). The UPDP within these two flows was used to evaluate the following UI design elements: "An overlay is used to make an offer for the paid digital membership/subscription program" and "Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage."

[2] Under "Website Category," the 48 companies whose enrollment flows I analyzed can be divided into three categories based on the types of products/services they offer: (1) companies that also sell products or services other than the paid digital membership/subscription programs (e.g., Walmart, Best Buy) ("Category 1"), (2) companies that use a freemium pricing model (i.e., companies that offer a free version of their product or service alongside paid digital membership/subscription programs for premium content and services (e.g., YouTube Music, Wall Street Journal)) ("Category 2"), and (3) companies that only offer paid digital membership/subscription programs for streaming content or the services they offer (e.g. Netflix, Xfinity) ("Category 3"). See **Appendix D** for more details.

[3] Out of the 48 flows reviewed for "Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage," 37 of them did not contain a call-to-action feature to decline the offer to compare against the call-to-action feature to accept the offer, and thus, were not applicable to be reviewed for this UI design element. For these websites, a call-to-action feature to decline the offer is not available for consumers to explicitly decline the offer, but consumer can choose not to enroll in the paid digital membership/subscription program by actions such as not signing up for the offer and leaving the website, not adding the paid digital membership/subscription to the shopping cart, or closing the overlay (if applicable) by clicking on the "X" in the top corner of the overlay. Results were calculated based on the 11 flows that did have both call-to-action features to accept and decline the offer for the paid digital membership/subscription program. See **Appendix D, Appendix D.1** for more details.

(1) The company offers a free trial that automatically renews and charges payment method if not cancelled before the end of the trial period

277. The FTC's allegations regarding the at-issue UI design elements in the enrollment processes for Prime focus on the Prime free trial offer that automatically converts to a paid membership if consumers do not cancel prior to the expiration of the free trial. Accordingly, I collected information on the existence of free trial offers that automatically convert to a paid membership if consumers do not cancel to demonstrate the prevalence of such free trial offers.

278. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether the company offered a free trial that automatically renewed if not cancelled and charged the payment method entered by the consumer at the end of the trial period, similar to Amazon's Prime free trial offer. For example, Paramount+, one of the top five most popular streaming services by subscriber count, offered a week-long free trial. Paramount+ then applied the standard monthly charge of \$5.99 if a consumer did not cancel before the end of the week-long free trial period, as shown in Exhibit 56 below. I found that around half (23, 48%) of the programs I analyzed offered a free trial of the paid digital membership/subscription program that automatically renewed (i.e., converted into a paid digital membership/subscription program) at the end of the trial, if not canceled before then.⁴⁵²

⁴⁵² For companies that I indicate do not offer free trials, my evaluation is based on my contemporaneous review of the webpage as shown in **Appendix E**, but I make no opinion regarding whether that company may have offered free trials in the past, or whether they may do so in the future.

Exhibit 56 Paramount+ Free Trial Auto-Renewal

The screenshot shows the 'Payment Method' section of the Paramount+ website. It includes fields for First Name, Last Name, Address, City, State, ZIP Code, Credit Card Number, Exp. MM, YYYY, and CVV. To the right, a 'Your Plan' section shows a trial offer for Paramount+ Essential at \$5.99/Month for 1 Week FREE. A 'Save with an Annual Plan' button is available. Below, a note states that charges will apply if not canceled before 07/10/2024. A red box highlights the terms of service for the auto-renewal plan, which states: 'By clicking "Start Paramount+", you agree to the [Subscription Terms](#) and that after any applicable promotional period your subscription will automatically renew on a monthly basis and you will be charged \$5.99/Month (plus applicable tax) at the start of each billing period unless you cancel. Cancel at any time through your account page effective at the end of the billing cycle. No refunds for partial months. Cancel before any applicable promotional period ends to avoid charges. *Savings compared to 12 months of regular monthly subscription price.' A 'START PARAMOUNT+' button is at the bottom.

Source: Appendix E, Paramount+, Direct Enrollment.

Note: Red box added for emphasis.

(2) An overlay is used to make an offer for the paid digital membership/subscription program

279. The FTC references Amazon's use of the UPDP page, shown in Exhibit 57, as an "interstitial" in its Amended Complaint, citing it as evidence of alleged "forced action."⁴⁵³ Specifically, the FTC claims that "[a]n interstitial is a page that interrupts consumers' online shopping experience by appearing before the page that consumers seek to access in the first place."⁴⁵⁴ For the purposes of this analysis, I use the term "overlay" to refer to UI design elements that appear over the content of the page (e.g., a popup) or as a full standalone webpage that require the consumer to take an action regarding the offer for the paid digital

⁴⁵³ Amended Complaint, ¶ 36, 231.a.

⁴⁵⁴ Amended Complaint, ¶ 36.

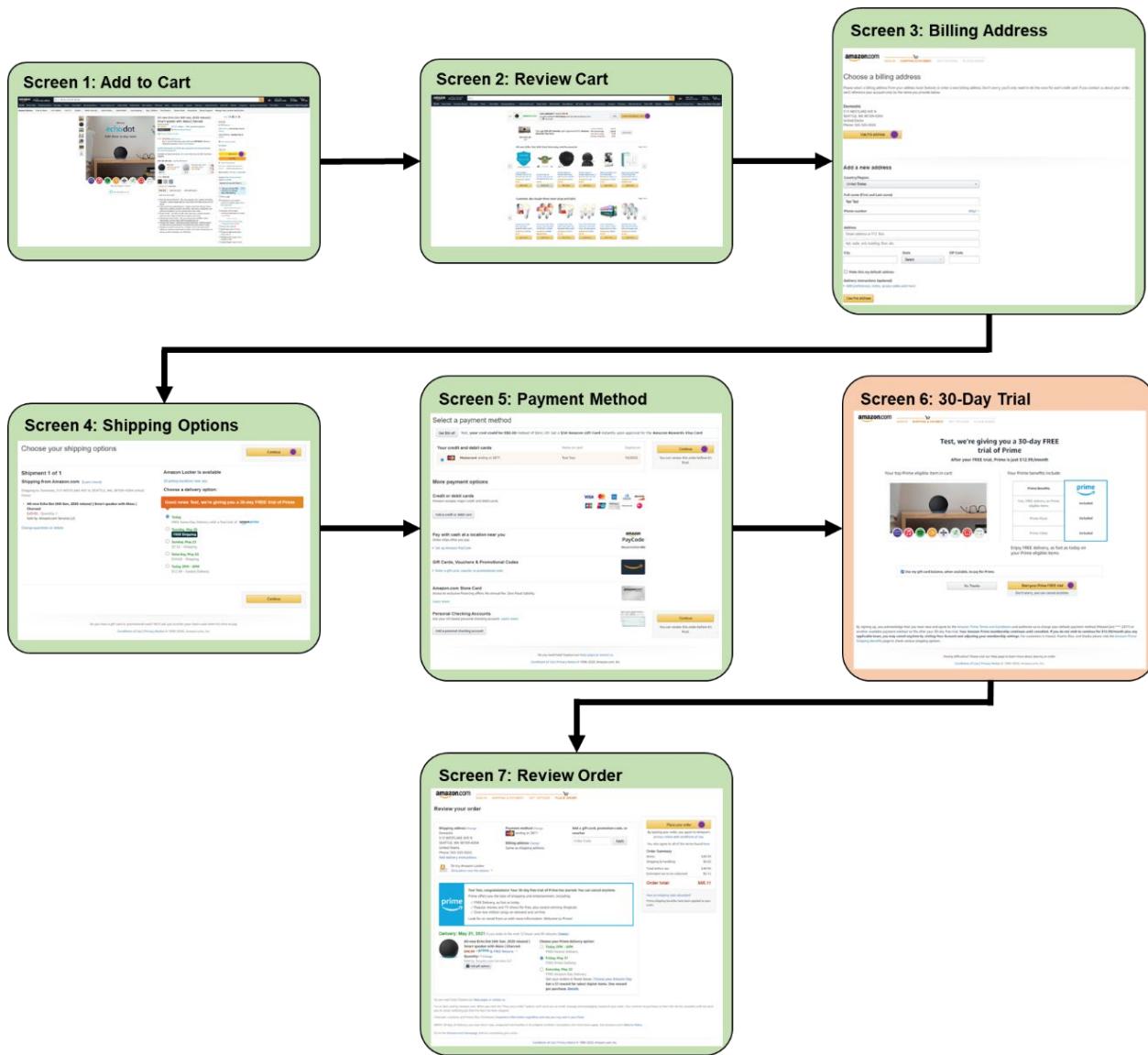
membership/subscription program before they can progress in the flow (i.e., the consumer is required to click call-to-action features embedded in the overlay such as accepting, declining, or learning more about the offer, or to click an “X” to exit the overlay and continue).⁴⁵⁵

280. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether the company used an overlay for the offer for the paid digital membership/subscription program or a free trial of the program, similar to Amazon’s UPDP page depicted in Exhibit 57. For example, SimpliSafe, one of the most popular home security paid digital membership/subscription programs,⁴⁵⁶ offered a free trial for SimpliSafe on an overlay, as shown in Exhibit 58. Thus, I identified SimpliSafe as having a similar at-issue UI design element in its enrollment process as Amazon Prime. I found that 27 companies (56%) used an overlay for the offer for their paid digital membership/subscription program.

⁴⁵⁵ Amended Complaint, ¶ 38; “Popups: 10 Problematic Trends and Alternatives,” *Nielson Norman Group*, June 30, 2019, <https://www.nngroup.com/articles/popups/>.

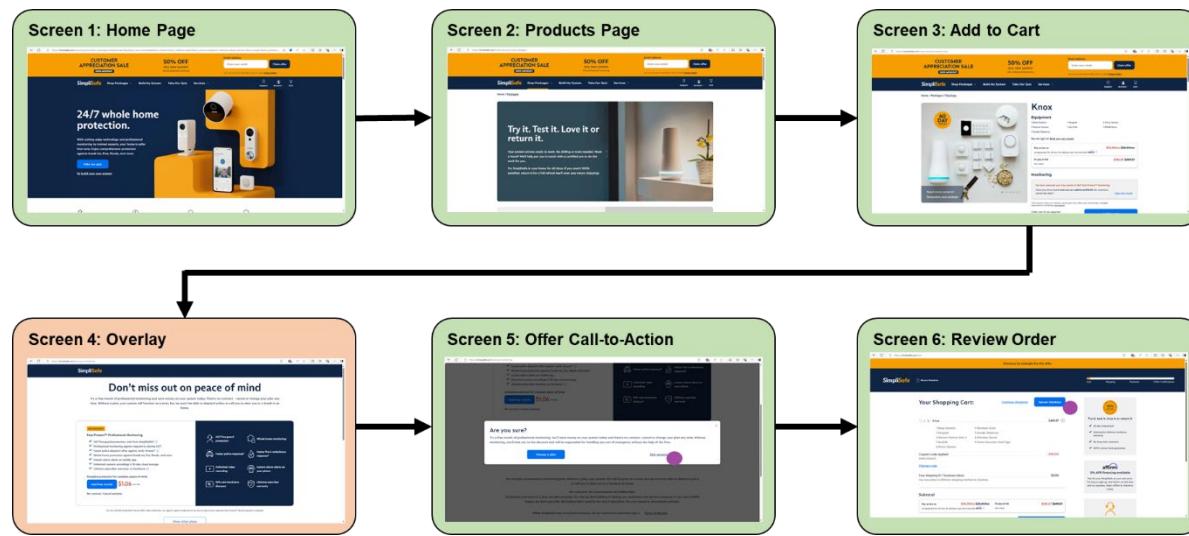
⁴⁵⁶ See Appendix D.

Exhibit 57 Overlay with Prime Offer in Screen 6 of SOSP Flow Highlighted by the FTC



Source: Adapted from "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slides 6–12.

Exhibit 58 Overlay with SimpliSafe Free Trial Offer in SimpliSafe's Checkout Process



Source: Appendix E, SimpliSafe, Decline Offers.

(3) **The benefits of the paid digital membership/subscription program are repeated multiple times on a given webpage; the benefits of the paid digital membership/subscription program are repeated across multiple webpages**

281. The FTC alleges that Amazon uses “repetition and color to direct consumers’ attention to the words ‘free shipping’ and away from Prime’s price,” as shown in Exhibit 59, citing it as evidence of alleged “Interface Interference.”⁴⁵⁷ Additionally, the FTC alleges that for the TrueSPC flow, Amazon uses several “upsells”⁴⁵⁸ that include promoting “Get FREE Prime Delivery with Prime,” “Fast, FREE Delivery,” a list of “Prime Benefits,” and additional button and choices for “Get FREE One-Day Delivery with Prime” and “FREE One-Day Delivery with your free trial of Amazon Prime.” The corresponding screens are shown in Exhibit 60.⁴⁵⁹

⁴⁵⁷ Amended Complaint, ¶ 231.b.i. *See also* Amended Complaint, ¶¶ 39, 44, 45.a, 71–73, 76.

⁴⁵⁸ As I discuss in Section VIII.B, while the FTC and Amazon refer to the UPDP page as an “upsell,” this type of offer is generally known as a “cross-sell” in the marketing literature and industry best practices. *See* Section VIII.B.

⁴⁵⁹ Amended Complaint, ¶¶ 71–76.

Exhibit 59 Prime Benefits Presented on UPDP Page Highlighted by the FTC

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

No minimum order threshold for FREE One-Day Delivery

Your top Prime eligible item in cart:



Your Prime benefits include:

Delivery Speed	prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery	FREE
Two-Day Delivery	FREE

Save \$7.52 on your Prime eligible items with FREE Same-Day Delivery on this order.

No thanks, I do not want FREE delivery Get FREE Same-Day Delivery
Enjoy Prime FREE for 30 days

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting [Your Account](#) and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our Help page to learn more about placing an order.
[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 18.

Note: Red boxes added for emphasis.

Exhibit 60 Prime Benefits Presented in TrueSPC Flow Highlighted by the FTC

First Cross-Sell: Large Blue Banner

Second Cross-Sell: Delivery Options

Third Element: Offers

Fourth Element: Review items and shipping

Source: Adapted from Amended Complaint, Attachment I, page 4; Amended Complaint, Attachment J, pages 7–8.

Note: Red boxes added for emphasis. While the FTC refers to the elements pictured above as “upsells,” this type of offer is generally known as a “cross-sell” in the marketing literature and industry best practices. See Section VII.B for more details.

282. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether other companies repeated the benefits of their paid digital membership/subscription program during the enrollment process, similar to Exhibit 59 and Exhibit 60. I evaluated two UI design elements to assess repetition of benefits since the FTC’s allegations related to repetition are multifaceted: (1) benefits that were repeated two or more times on a given webpage of the enrollment process, and (2) benefits that were repeated across multiple webpages in the enrollment process. For example, 7-Eleven Gold Pass, one of the most

popular food delivery paid digital membership/subscription programs,⁴⁶⁰ repeated the word “cashback,” one of the benefits of 7-Eleven Gold Pass multiple times on a webpage during the desktop enrollment flow, as shown in Exhibit 61. Instacart+, another one of the most popular food delivery paid digital membership/subscription programs,⁴⁶¹ repeated the benefits of Instacart+ on multiple webpages within the desktop enrollment flow, as shown in Exhibit 62. Thus, I identified both 7-Eleven Gold Pass and Instacart+ as having similar at-issue UI design elements in their respective desktop enrollment processes as Amazon Prime. I found that 44 companies (92%) repeated membership/subscription benefits two or more times on a given webpage of the enrollment process, and 44 companies (92%) repeated membership/subscription benefits across multiple webpages of the enrollment process.

⁴⁶⁰ See Appendix D.

⁴⁶¹ See Appendix D.

Exhibit 61 Multiple Instances of Membership Benefits on a Single 7-Eleven Webpage

The screenshot shows the 7-Eleven website with several promotional banners for membership benefits:

- Earn 10% Cashback on 7NOW® Gold Pass™ App Orders**: A yellow banner at the top left. It includes the 7NOW logo, a "CASH BACK" graphic, and a "Learn More" button. A red box highlights the "cashback!" text.
- GET A CHANCE TO WIN FREE SNACKS OR SIPS FOR A YEAR with 7REWARDS**: A banner in the center left. It features two cans of Celsius drink (Sparkling and Fizz-Free) and a green smoothie cup.
- Want to Step Up Your Snack Game?**: A banner in the center right. It features a pizza and a green smoothie cup.
- 2 for \$4.50 CELSIUS 12 oz.**: A banner in the center right. It features two cans of Celsius drink.

Source: Appendix E, 711 Gold Pass, Accept 1st Offer.

Note: Red boxes added for emphasis.

Exhibit 62 Membership Benefits on Multiple Pages of the Instacart+ Desktop Enrollment Flow

The screenshot shows the Instacart+ desktop enrollment flow with several promotional banners for membership benefits:

- Get \$0 delivery fees for 2 weeks. Service fees apply.**: A central modal window with a woman sitting on a sandwich graphic.
- \$0 grocery delivery fees***: Text below the modal.
- \$0 restaurant delivery fees***: Text below the modal.
- Share membership perks**: Text below the modal.
- \$99/yr after trial**: Text below the modal.
- Cancel anytime**: Text below the modal.
- TRY FREE FOR 2 WEEKS**: A purple button in the modal.
- Get \$5 off your next restaurant order - Add \$40 to qualify**: A banner at the bottom of the page.

The screenshot shows the Instacart storefront for FoodsCo. The main content area displays a 'Flyer deals Dec 18-24' section with various grocery items like bread, lemons, and cheese. A central promotional overlay for 'Instacart+' is displayed, featuring a colorful fruit and vegetable graphic. The text 'Congrats! You've got \$0 delivery fees*' is highlighted with a red box. Below it, smaller text reads 'Enjoy your free trial of Instacart+ for the next 14 days. *Service fees apply.' A purple button says 'Start shopping'.

The screenshot shows the Instacart checkout page. The 'Deliver to' section is set to '2 Embarcadero Center San Francisco, CA'. The 'When' section offers delivery times: 'Fast 6pm-7pm' (FREE), 'Schedule and save As soon as 4pm today' (FREE Get \$2 off), and 'Priority Unavailable'. The 'Summary' section shows a total of '\$27.40 \$16.98'. It highlights a 'Service fee' of '\$4.00 ✕ \$3.49' with a red box. A note says 'Get a year of New York Times Cooking with an annual Instacart+ plan. Terms apply.' A green 'Continue' button is at the bottom.

Source: Appendix E, Instacart+, Accept 1st Offer.

Note: Red boxes added for emphasis.

(4) Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage

283. The FTC references visual differences in size and color between the options to accept or decline the free Prime membership trial offer on the UPDP page in its Amended Complaint, citing it as evidence of alleged “dark patterns” such as “forced action,” “obstruction,” and “misdirection.”⁴⁶² Specifically, the FTC alleges that on the UPDP page (reproduced in Exhibit 63 below), “[t]he contrast between an orange ‘double-stacked’ button to enroll in Prime and a blue link to decline prioritizes the enrollment option over the decline option and creates a visual imbalance.”⁴⁶³

284. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether the call-to-action feature to decline the offer for the paid digital membership/subscription program (or a free trial of the program) differs in color and/or size from the call-to-action feature to accept the offer on the same webpage, similar to Amazon’s UPDP page depicted in Exhibit 63. Of the 48 programs I examined, 11 had call-to-action features for *both* accepting and declining the offer on the same webpage within the enrollment process. I assessed whether these 11 programs had call-to-action features for declining that differed in color and/or size from the call-to-action feature for accepting the offer and found that 9 (82%) of them differed.⁴⁶⁴ For example, DoorDash DashPass, one of the most popular food delivery paid digital membership/subscription programs,⁴⁶⁵ presented a red button to “Start free DashPass trial,” a grey button to “Learn More,” and a link to “Not Now,” in the enrollment process of DashPass, as seen in Exhibit 64. Thus, I identified Door Dash DashPass as having a similar at-issue UI design element in its enrollment process as Amazon Prime.

⁴⁶² Amended Complaint, ¶¶ 38, 231.

⁴⁶³ Amended Complaint, ¶ 42.

⁴⁶⁴ Of the remaining 37 flows that did not have options to decline, consumers could choose not to enroll in the paid digital membership/subscription programs by not signing up for the offer and leaving the website, not adding the paid digital membership/subscription to the shopping cart, or by closing the overlay (if applicable) by clicking on the “X” on the top corner of the overlay. *See Appendix D.*

⁴⁶⁵ *See Appendix D.*

**Exhibit 63 Call-to-Action Features to Accept and Decline Offer for Amazon Prime
Highlighted by the FTC**

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

No minimum order threshold for FREE One-Day Delivery

Your top Prime eligible item in cart:

Your Prime benefits include:

Delivery Speed	prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery	FREE
Two-Day Delivery	FREE

Save **\$7.52** on your Prime eligible items with FREE Same-Day Delivery on this order.

No thanks, I do not want FREE delivery Get FREE Same Day Delivery Enjoy Prime FREE for 30 days

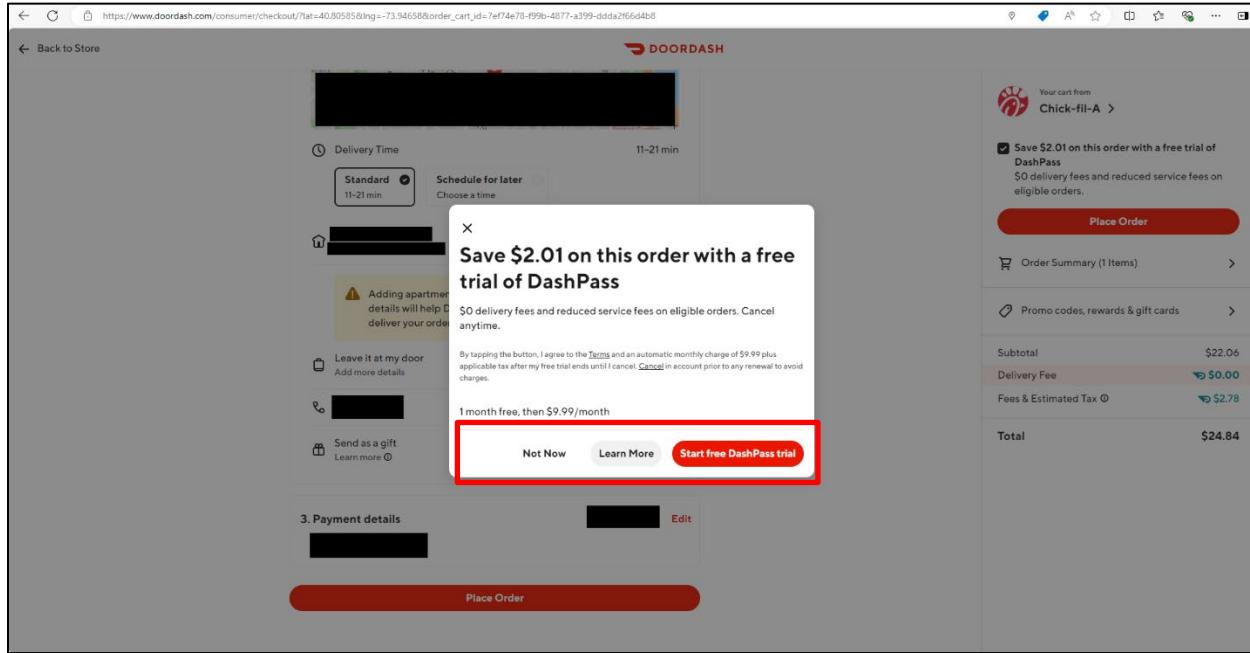
By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting [Your Account](#) and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our [Help](#) page to learn more about placing an order.
[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: "Prime Free Trial Signup CX," May 23, 2021, AMZN_00003614 at slide 18.

Note: Red box added for emphasis.

Exhibit 64 Call-to-Action Features to Accept and Decline Free Trial Offer for DoorDash DashPass



Source: Appendix E, DoorDash DashPass, Accept 1st Offer.

Note: Red box added for emphasis.

(5) **Information about auto-renewal and/or the price of the paid digital membership/subscription program is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program**

285. The FTC alleges that the Amazon enrollment flows do not “clearly and conspicuously” disclose the price and auto-renewal feature of Prime, citing it as evidence of alleged “sneaking” dark pattern.⁴⁶⁶ Specifically, the FTC argues that certain pages from SOSP and SPC flows promoted Prime without showing “the price of a Prime subscription” or “disclose the monthly auto-renewal,” as shown in Exhibit 65.⁴⁶⁷ I note that as I discuss in Section VIII.B.2 and VIII.B.3, the FTC fails to acknowledge that consumers interested in the offer would receive the

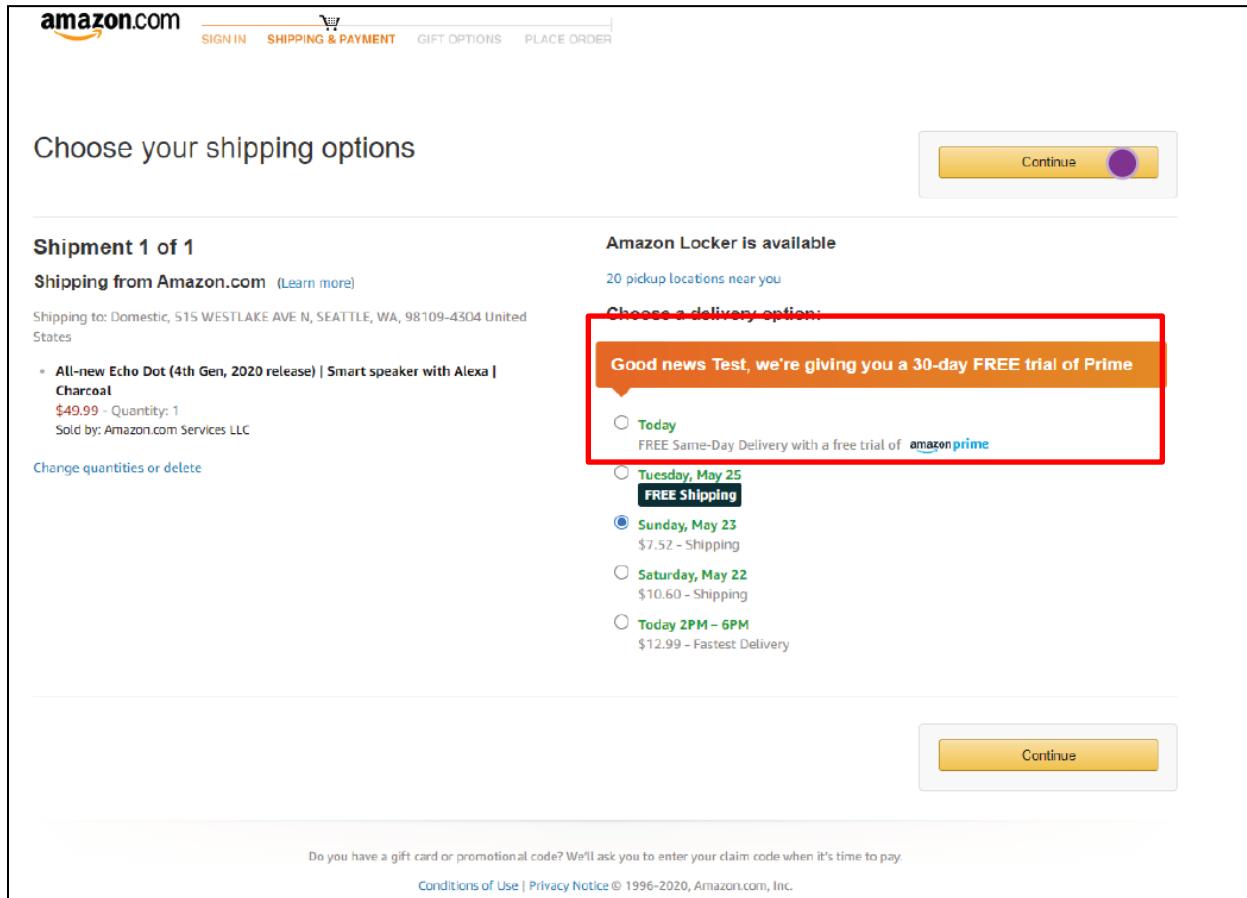
⁴⁶⁶ Amended Complaint, ¶¶ 43, 48–49, 54, 231.e.

⁴⁶⁷ Amended Complaint, ¶¶ 48–49, 54.

price and autorenewal information in other pages of the SPC and SOSP flows *before* completing enrollment in Prime, as shown in Exhibit 66 for the SPC flow and Exhibit 67 for the SOSP flow.

286. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether the company disclosed information about the price or auto-renewal of the paid digital membership/subscription program before a consumer enrolled in the program or a free trial of the program, similar to the pages of the SPC and SOSP flows depicted in Exhibit 66 and Exhibit 67, respectively. For example, DoorDash DashPass disclosed the price and auto-renewal information before the consumer enrolled in the free trial of DashPass, as shown in Exhibit 68. Thus, I identified DoorDash DashPass as having a similar at-issue UI design element in its enrollment process as Amazon Prime. I found that 48 companies (100%) disclosed the auto-renewal and price information before a consumer enrolled in the paid digital membership/subscription program or the free trial of the program.

Exhibit 65 Alleged SPC and SOSP Page Without Disclosure of Prime's Price or the Monthly Auto-Renewal



The screenshot shows the Amazon.com shipping options page for a purchase of an All-new Echo Dot (4th Gen, 2020 release) in Charcoal. The item is \$49.99, quantity 1. The shipping address is 515 WESTLAKE AVE N, SEATTLE, WA, 98109-4304 United States. The page displays shipping options and a note about Amazon Locker availability. A red box highlights a promotional message: "Good news Test, we're giving you a 30-day FREE trial of Prime" followed by "FREE Same-Day Delivery with a free trial of [amazon prime](#)". The delivery options listed are: Today (FREE Shipping), Tuesday, May 25 (FREE Shipping), Sunday, May 23 (\$7.52 - Shipping), Saturday, May 22 (\$10.60 - Shipping), and Today 2PM - 6PM (\$12.99 - Fastest Delivery). A "Continue" button is visible at the bottom right.

Choose your shipping options

Shipment 1 of 1

Shipping from Amazon.com [\(Learn more\)](#)

Shipping to: Domestic, 515 WESTLAKE AVE N, SEATTLE, WA, 98109-4304 United States

All-new Echo Dot (4th Gen, 2020 release) | Smart speaker with Alexa | Charcoal
\$49.99 - Quantity: 1
Sold by: Amazon.com Services LLC

[Change quantities or delete](#)

Amazon Locker is available
20 pickup locations near you

Choose a delivery option:

Good news Test, we're giving you a 30-day FREE trial of Prime

Today
FREE Same-Day Delivery with a free trial of [amazon prime](#)

Tuesday, May 25
FREE Shipping

Sunday, May 23
\$7.52 - Shipping

Saturday, May 22
\$10.60 - Shipping

Today 2PM - 6PM
\$12.99 - Fastest Delivery

Do you have a gift card or promotional code? We'll ask you to enter your claim code when it's time to pay.

[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: Amended Complaint, Attachment H, page 4.

Note: Red box added for emphasis.

Exhibit 66 SPC Page With Disclosure of Prime's Price or the Monthly Auto-Renewal

amazon.com [SIGN IN](#) [SHIPPING & PAYMENT](#) [GIFT OPTIONS](#) [PLACE ORDER](#)

Review your order

Shipping address [Change](#)
See details below.
[Add delivery instructions](#)

Payment method [Change](#)  ending in 2871

Billing address [Change](#)
Same as shipping address

Add a gift card, promotion code, or voucher
 [Apply](#)

Place your order

By placing your order, you agree to Amazon's [privacy notice](#) and [conditions of use](#).
You also agree to all of the terms found [here](#).
By placing your order, you agree to [Terms and Conditions](#), and authorize us to charge your default payment method or any other payment method on file. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes after your first month, you may cancel anytime by visiting [Your Account](#). For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Amazon Prime (30-Day Free Trial)
\$0.00 [View larger image](#)
Delete 

Your Prime membership will be applied to [peas-service+0-1621614338013WspB@email.amazon.com](#). [Learn more](#)

Items shipped from Amazon.com
Shipping address: Domestic, 515 WESTLAKE AVE N, SEATTLE, WA, 98109-4304 United States [Change](#)

Delivery: May 23, 2021 If you order in the next 14 hours and 31 minutes [\(Details\)](#)

All-new Echo Dot (4th Gen, 2020 release) | Choose your Prime delivery option:
 Today 2PM – 6PM FREE Fastest Delivery
 Sunday, May 23 FREE Prime Delivery

 [Add a gift receipt](#)
and see other gift options

By placing your order, you agree to The Amazon Prime terms next to the order button at the top of this checkout page, including Amazon Prime's auto-renewal terms.
Do you need help? Explore our [Help pages](#) or [contact us](#)
For an item sold by Amazon.com: When you click the "Place your order" button, we'll send you an email message acknowledging receipt of your order. Your contract to purchase an item will not be complete until we send you an email notifying you that the item has been shipped.
Colorado, Louisiana and Puerto Rico Purchasers: [Important information regarding sales tax you may owe in your State](#)
Within 30 days of delivery, you may return new, unopened merchandise in its original condition. Exceptions and restrictions apply. See Amazon.com's [Returns Policy](#)
Go to the [Amazon.com homepage](#) without completing your order.

[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: Amended Complaint, Attachment H, page 6.

Note: Red boxes added for emphasis.

Exhibit 67 SOSP Flow Containing UPDP Page With Disclosure of Prime's Price and the Monthly Auto-Renewal

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

After your FREE trial, Prime is just \$12.99/month

Your top Prime eligible item in cart:

Your Prime benefits include:

Prime Benefits	
Fast, FREE delivery on Prime eligible items	Included
Prime Music	Included
Prime Video	Included

Enjoy FREE delivery, as fast as today on your Prime eligible items.

Use my gift card balance, when available, to pay for Prime.

No Thanks Start your Prime FREE trial

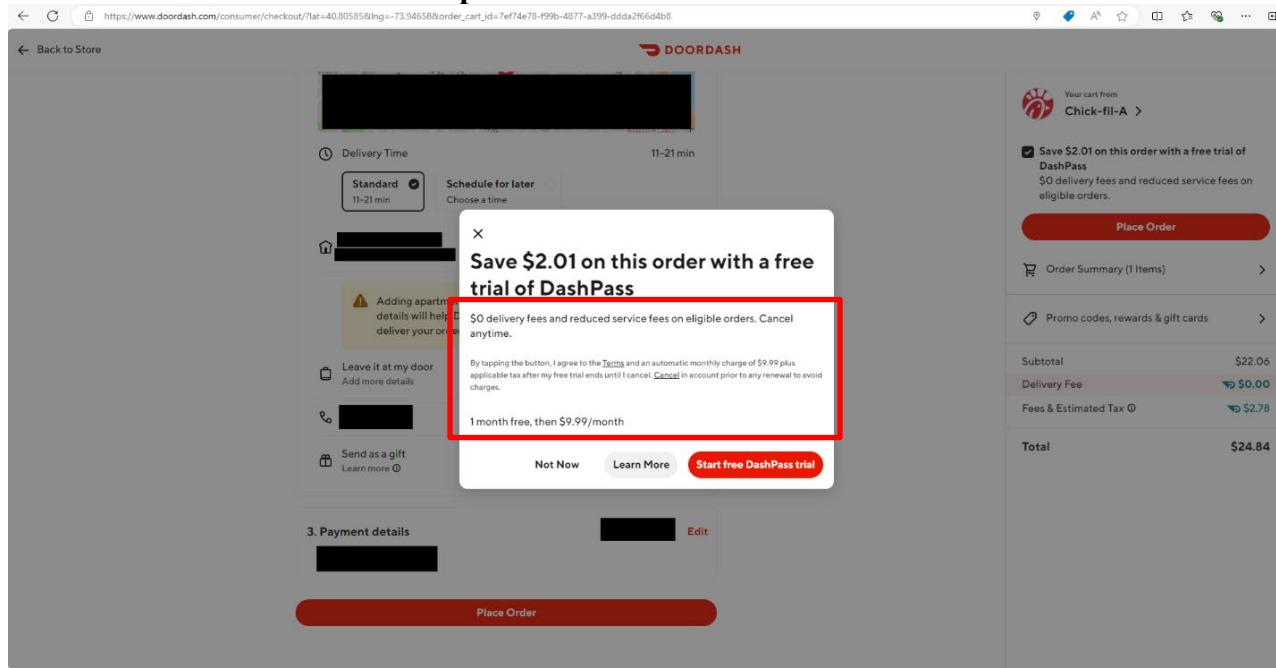
Don't worry, you can cancel anytime.

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. **Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings.** For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our Help page to learn more about placing an order.
[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: Amended Complaint, Attachment G, page 6.

Note: Red boxes added for emphasis.

Exhibit 68 DoorDash's Price and Auto-Renewal Disclosures Before Enrollment Completion for Free Trial of DashPass


Source: Appendix E, DoorDash DashPass, Accept 1st Offer.

Note: Red box added for emphasis.

(6) Information about the benefits of the paid digital membership/subscription program is presented using larger or differently colored text or other visual elements compared to other text on the same webpage

287. The FTC alleges that Amazon uses “Interface Interference,” as it “manipulates the user interface in ways that privilege certain specific information relative to other information,” and “uses [...] color to direct consumers attentions to the words ‘free shipping’.”⁴⁶⁸ Specifically, the FTC claims that Amazon promotes information about “a 30-day FREE trial of Prime” in a larger font than the font used to describe the price or auto-renewal, as shown in Exhibit 69, and uses bold font to promote information about “unlimited fast, FREE delivery,” shown in Exhibit 70.⁴⁶⁹

⁴⁶⁸ Amended Complaint, ¶ 231.b.

⁴⁶⁹ Amended Complaint, ¶¶ 50, 57.

288. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether companies presented the benefits of the paid digital membership/subscription programs in larger or differently colored text or other visual elements compared to other text on the same webpage of the enrollment process. For example, Walmart+, one of the most popular delivery paid digital membership/subscription programs,⁴⁷⁰ presented the benefits of Walmart+ using larger or differently colored text compared to other text on the same webpage of its enrollment process, as shown in Exhibit 71. Thus, I identified Walmart+ as having a similar at-issue UI design element in its enrollment process as Amazon Prime. I found that almost all programs (46 programs, 96%) present membership benefits using larger or differently colored text or other visual elements, compared to other text on the same webpage of the enrollment process.

⁴⁷⁰ See Appendix D.

Exhibit 69 Font Size and Color of Prime Benefits on UPDP Page Highlighted by the FTC

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

After your FREE trial, Prime is just \$12.99/month

Your top Prime eligible item in cart:



Amazon Music Prime Video Prime Reading Prime Now Prime Pantry Philips Hue

Your Prime benefits include:

Prime Benefits	Included
Fast, FREE delivery on Prime eligible items	Included
Prime Music	Included
Prime Video	Included

Enjoy FREE delivery, as fast as today on your Prime eligible items.

Use my gift card balance, when available, to pay for Prime.

No Thanks Start your Prime FREE trial

Don't worry, you can cancel anytime.

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. **Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings.** For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our Help page to learn more about placing an order.
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Source: Amended Complaint, Attachment G, page 6.

Note: Red boxes added for emphasis.

Exhibit 70 Font Size and Color of Prime Benefits in SPC Flow Highlighted by the FTC

amazon.com

SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Review your order

Shipping address Change
Domestic
515 WESTLAKE AVE N
SEATTLE, WA 98109-4304
United States
Phone: 555 555-5555
Add delivery instructions

Payment method Change
ending in 2871

Billing address Change
Same as shipping address

Add a gift card, promotion code, or voucher
Enter Code Apply

Place your order

By placing your order, you agree to Amazon's privacy notice and conditions of use. You also agree to all of the terms found here.

Order Summary

Items:	\$49.99
Shipping & handling:	\$7.52
Total before tax:	\$57.51
Estimated tax to be collected:	\$5.89
Order total:	\$63.40

How are shipping costs calculated?

FREE TRIAL

Test, we'd hate for you to miss out on unlimited fast, FREE delivery

Save \$7.52 on eligible items in this order and enjoy unlimited fast, FREE delivery when you try Prime FREE for 30 days.

Try Prime FREE for 30 days

No hassle. No commitments. Cancel anytime.

Delivery: May 24, 2021 If you order in the next 14 hours and 32 minutes (Details)

All-new Echo Dot (4th Gen, 2020 release) |
Smart speaker with Alexa | Charcoal
\$49.99 & FREE Returns |
Amazon Prime eligible Join now
View larger image
Quantity: 1 Change
Sold by: Amazon.com Services LLC
Add gift options

Choose a delivery option:

Today
FREE Same-Day Delivery with your free trial of Prime
Fast, FREE Delivery prime

Wednesday, May 26
FREE Shipping

Monday, May 24
\$7.52 - Shipping

Sunday, May 23
\$10.60 - Shipping

Today 2PM - 6PM
\$12.99 - Fastest Delivery

Do you need help? Explore our [Help pages](#) or [contact us](#)

For an item sold by Amazon.com: When you click the "Place your order" button, we'll send you an email message acknowledging receipt of your order. Your contract to purchase an item will not be complete until we send you an email notifying you that the item has shipped.

Colorado, Louisiana and Puerto Rico Purchasers: [Important information regarding sales tax you may owe in your State](#)

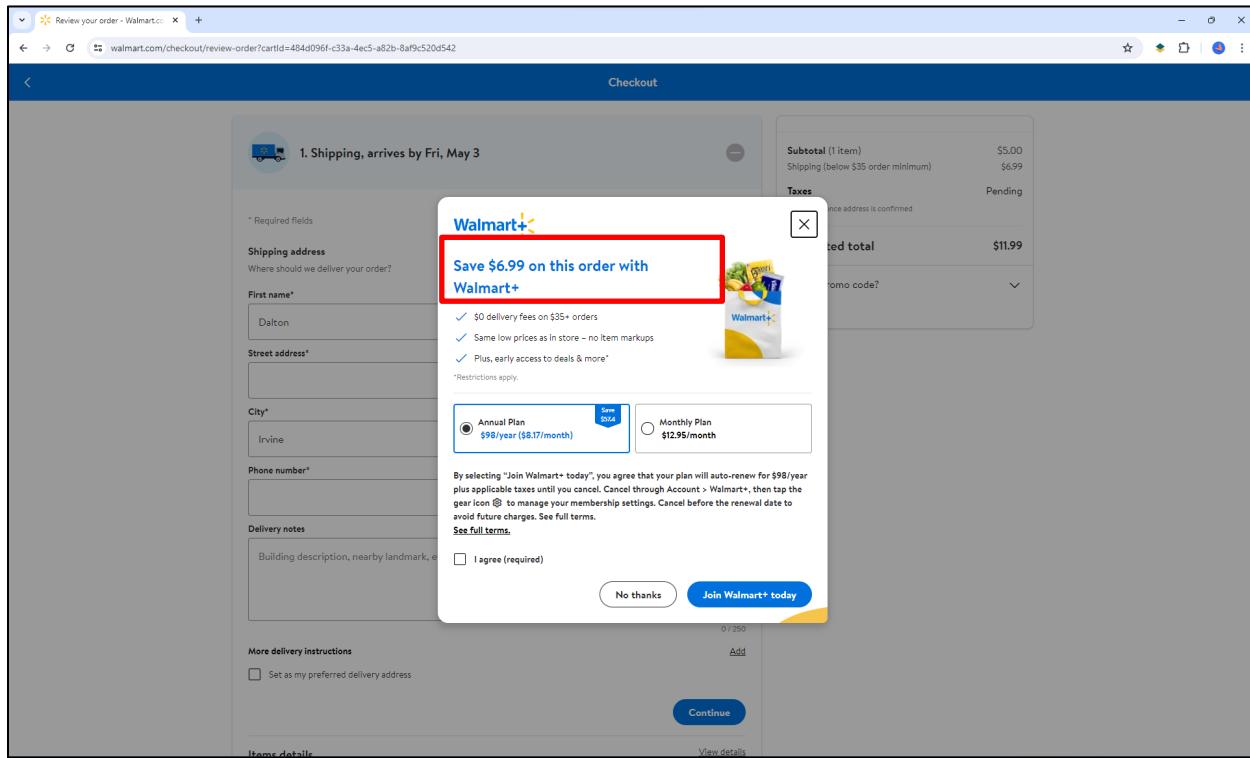
Within 30 days of delivery, you may return new, unopened merchandise in its original condition. Exceptions and restrictions apply. See Amazon.com's [Returns Policy](#)

Go to the [Amazon.com homepage](#) without completing your order.

[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: Amended Complaint, Attachment H, page 5.

Note: Red boxes added for emphasis.

Exhibit 71 Font Size and Color of Benefits of Walmart+


Source: Appendix E, Walmart+, Decline Offers.

Note: Red box added for emphasis.

(7) **Call-to-action feature to complete enrollment in the paid digital membership/subscription program or a free trial of the program is the same color scheme as other call-to-action features encountered by a consumer prior to completing enrollment**

289. The FTC alleges that “Amazon knew that some consumers clicked on yellow buttons expecting only to continue the checkout process rather than to enroll in Prime,”⁴⁷¹ citing it as evidence of “forced action.” While the FTC does not explicitly state the basis of this allegation, it references various other yellow or orange call-to-action buttons throughout the Amazon website, including “Continue” buttons consumers click on to proceed to complete their purchases.⁴⁷² That is, the FTC appears to imply that if some consumers are familiar with a certain color scheme for

⁴⁷¹ Amended Complaint, ¶ 231.a.i.

⁴⁷² Amended Complaint, ¶¶ 35, 66.

call-to-action features on the website, they would expect, when seeing the same colored call-to-action features during the checkout process, to be those that would continue the checkout process instead of signing-up for a paid digital membership/subscription program as shown in Exhibit 72. 290. I reviewed the enrollment processes of 48 popular paid digital membership/subscription programs to assess whether other companies used the same color scheme for the call-to-action feature to complete enrollment in the paid digital membership/subscription program or in a free trial of the program as other call-to-action features encountered by the consumer prior to completing enrollment. In doing so, I assessed whether the consumer encountered two or more call-to-action features prior to completing enrollment that had the same color pattern as the call-to-action feature consumers clicked to complete enrollment.⁴⁷³ For example, My Best Buy Plus,⁴⁷⁴ one of the most popular paid digital membership/subscription delivery programs, uses the same color scheme for two add-product-to-cart buttons as the button to complete enrollment in My Best Buy Plus, as shown in Exhibit 73. Thus, I identified My Best Buy Plus as having a similar at-issue UI design element in its enrollment process as Amazon Prime. I found that most programs (42 programs, 88%) have this UI design element (i.e., the use of a call-to-action feature to complete enrollment in the paid digital membership/subscription program or a free trial of the program that is the same color as prior call-to-action features) in their desktop enrollment flows.

⁴⁷³ I considered this to be a proxy for detecting the type of pattern prior to enrollment implied by the FTC for the case of Amazon Prime.

⁴⁷⁴ See **Appendix D**.

Exhibit 72 Yellow Color of Call-to-Action Buttons in SOSP Flow Highlighted by the FTC

Select a payment method

Get \$50 off Test, your cost could be \$0.00 instead of \$41.39! Get a \$50 Amazon Gift Card instantly upon approval for the Amazon Rewards Visa Card

Continue

Your credit and debit cards

Mastercard	Mastercard ending in 2871	Name on card	Expires on
<input checked="" type="radio"/>	Mastercard ending in 2871	Test Test	10/2025

You can review this order before it's final.

More payment options

Credit or debit cards
Amazon accepts major credit and debit cards.

[Add a credit or debit card](#)

Pay with cash at a location near you
Order ships after you pay

[Set up Amazon PayCode](#)

amazon PayCode
WesternUnion®WU

Gift Cards, Vouchers & Promotional Codes

[Enter a gift card, voucher or promotional code](#)

Amazon.com Store Card
Access to exclusive financing offers. No annual fee. Zero fraud liability.

[Learn more](#)

Personal Checking Accounts
Use your US based personal checking account. [Learn more](#)

[Add a personal checking account](#)

Do you need help? Explore our [Help](#) pages or contact us

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Continue

You can review this order before it's final.

amazon.com  SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

Test, we're giving you a 30-day FREE trial of Prime

After your FREE trial, Prime is just \$12.99/month

Your top Prime eligible item in cart:



Your Prime benefits include:

Prime Benefits
Included
Included
Included

Prime Benefits

Fast, FREE delivery on Prime eligible items

Prime Music

Prime Video

Enjoy FREE delivery, as fast as today on your Prime eligible items.

Use my gift card balance, when available, to pay for Prime.

No Thanks Start your Prime FREE trial Don't worry, you can cancel anytime.

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (MasterCard ****-2871) or another available payment method on file after your 30-day free trial. **Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings.** For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

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Source: Amended Complaint, Attachment G, pages 5 and 6.

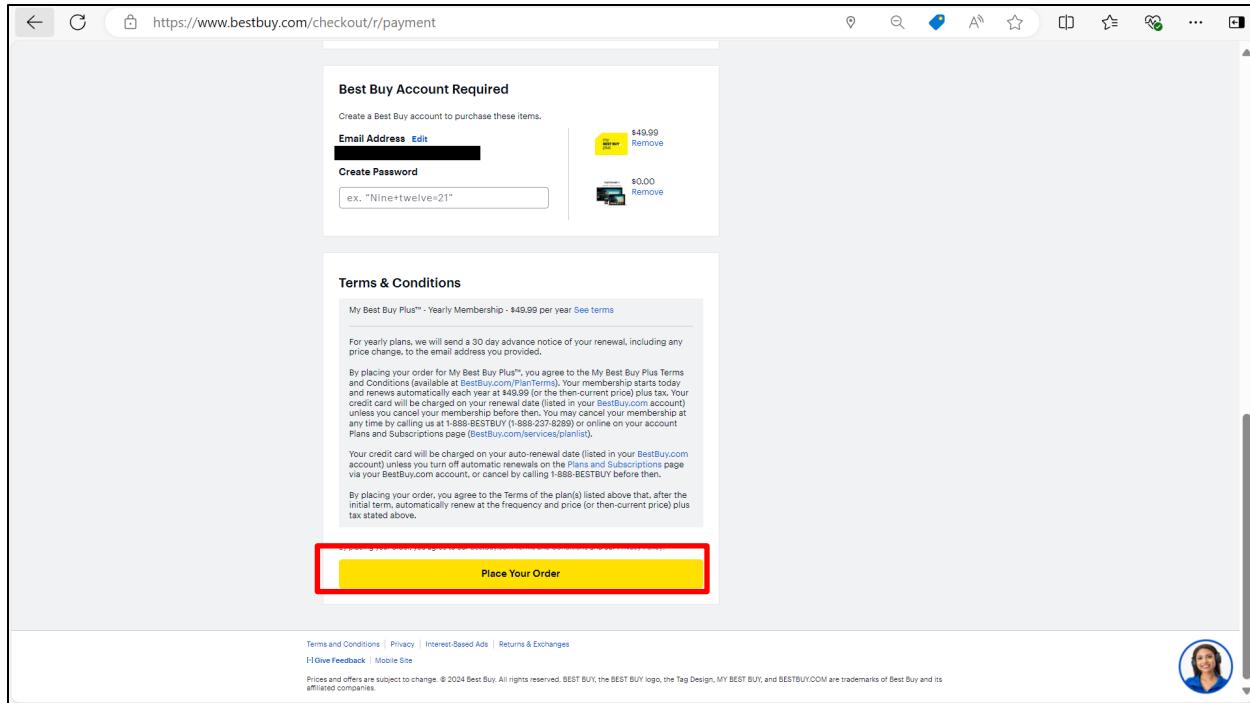
Note: Red box added for emphasis.

Exhibit 73 Yellow Call-to-Action and Enrollment Features on Best Buy Website

The image contains two screenshots of the Best Buy website, illustrating yellow call-to-action buttons and enrollment features.

Screenshot 1 (Top): This screenshot shows a product page for Apple AirPods (3rd generation). The page includes a 'Specifications' table, a 'Features' section with 'Questions & Answers (77)', and a 'Our experts recommend' section. A yellow 'Add to Cart' button is highlighted with a red box. Other buttons visible include 'Show Full Specs', 'Protection for your AirPods' (with a 'No Plan' and '2-Year \$29.99' option), 'Availability' (Pickup and Shipping), and 'More Buying Options' (Refurbished \$125.99).

Screenshot 2 (Bottom): This screenshot shows a product page for the iPhone 16 Pro. The page includes a 'Top Deals' header, a 'What can we help you find today?' search bar, and a 'Continue shopping' link. The main product image is for the iPhone 16 Pro. A yellow 'Add to Cart' button is highlighted with a red box. Other buttons visible include 'Add My Best Buy Plus™ Membership' (\$49.99/yr²), 'Don't want a membership? You will miss out on membership savings', and a list of benefits for Best Buy Plus members.



Source: Appendix E, My Best Buy Plus, Accept 1st Offer.

Note: Red box added for emphasis.

(8) Findings Specific to Cross-Sells

291. As I discuss in Section VIII.B.1.b, cross-sells, including offers of free shipping, are commonly used by companies to promote sales, as demonstrated in the marketing literature and industry sources.⁴⁷⁵ The findings from my analysis of non-Amazon enrollment processes are consistent with the findings from the marketing literature and industry sources. Specifically, all

⁴⁷⁵ “The Dark Side of Cross-Selling,” *Harvard Business Review*, December 2012, <https://hbr.org/2012/12/the-dark-side-of-cross-selling> (“We interviewed dozens of managers from 36 firms across industries in the U.S. and Europe. More than 90% of the firms had run cross-selling campaigns, and all found that their efforts increased average per-customer profit. Every manager said that because of this lift, he would cross-sell to any customer.”); Kamakura, W. (2007), “Cross-Selling: Offering the Right Product to the Right Customer at the Right Time,” in *Profit Maximization Through Customer Relationship Marketing*, New York, NY: Routledge, 41–58 at pp. 43–44 (“Within the context of customer relationship management, cross-selling has become a valuable strategy for customer development, for several reasons. … many customer-focused enterprises are taking advantage of cross-selling as a tool for customer development. … in general, customers’ reaction to cross-selling is surprisingly positive. A study conducted in 2005 by Forum Corp., a Boston global leader in workplace learning, with a sample of 1624 consumers around the world (focused on older, more affluent consumers) showed that 88% value service reps who suggest alternative products and services that better meet their needs. … The top factors affecting their willingness to consider purchasing additional products/services were satisfaction with current purchase and how well additional services meet their needs.”).

of the 16 companies that sell products or services other than the paid digital memberships/subscription programs (“Category 1”) offered the program or a free trial to it as a cross-sell during the online purchase process, e.g., a free trial for Walmart+ was offered to the consumer when the consumer was checking out to complete a purchase on Walmart.com. I find that among these 16 cross-sell offers for a membership/subscription program or a free trial to it, 9 were made using an overlay and the remaining 7 were embedded in webpages within the purchase flow.⁴⁷⁶ These findings are consistent with the scholarly marketing literature and industry reports regarding the common use of cross-sell offers by companies (both online and offline).⁴⁷⁷ Thus, cross-sells are likely to be familiar to many consumers, and those prior online experiences would serve to provide additional context for interpreting and understanding encountered UI design elements during a shopping experience on the Amazon website.

b. Findings from the Desktop Cancellation Flow Review

292. As shown in Exhibit 74, the vast majority of popular paid digital membership/subscription programs I analyzed use at-issue UI design elements that the FTC focuses on in the Amazon Prime cancellation process in its Amended Complaint. Specifically, 6 of the 7 at-issue UI design elements in Amazon’s cancellation processes (or those similar to them) were present in the cancellation processes of more than half of the paid digital membership/subscription programs I reviewed. Below, I discuss my findings for each at-issue UI design element within the cancellation flows of the programs I reviewed.

⁴⁷⁶ See Appendix E, Target Circle 360, Accept 1st Offer, 08 Added to Cart page 01; Costco, Accept 1st Offer, 06 Add Membership 01; Nintendo Switch Online, Accept 1st Offer, 04_Game_20; Uber One, Accept 1st Offer, 09 Cart 02; 711 Gold Pass, Accept 1st Offer, 17 Review Order 01; Nest Aware (Google Nest), Accept 1st Offer, 03 Product 11; Wyze, Accept 1st Offer, 03 WyzeCam 02.

⁴⁷⁷ See Section VIII.B.1.b.

Exhibit 74 Desktop Cancellation Flow Comparative Analysis

No.	Service	Website Category ⁽¹⁾	"Manage my account" webpage includes a feature to advance to the cancellation flow	Website's landing page does NOT include a feature to start the cancellation flow	Cancellation flow involves navigating multiple webpages	Call to action features for alternatives to immediately cancelling the program are present in cancellation flow	Cancellation flow mentions program's benefits	Cancellation flow includes warning icons	Call to action features for canceling differ in color from call to action feature to remain enrolled
Amazon Prime									
	Cancellation Flow		✓	✓	✓	✓	✓	✓	✓
A	Streaming								
A.1	Netflix	Category 3	✓	✓	✗	✗	✓	✗	✗
A.2	Disney+	Category 3	✓	✓	✓	✓	✓	✗	✓
A.3	Max	Category 3	✓	✓	✓	✓	✓	✗	✓
A.4	Paramount+	Category 3	✓	✓	✓	✓	✓	✗	✓
A.5	Hulu	Category 3	✓	✓	✓	✓	✗	✗	✓
B	Delivery								
B.1	Walmart+	Category 1	✓	✓	✓	✓	✓	✗	✓
B.2	Target Circle 360	Category 1	✓	✓	✓	✗	✓	✓	✓
B.3	My Best Buy Plus	Category 1	✓	✓	✓	✓	✓	✗	✓
B.4	Costco	Category 1	No online cancellation	✓	No online cancellation	No online cancellation	No online cancellation	No online cancellation	No online cancellation
B.5	Kroger Boost	Category 1	✓	✓	✓	✗	✓	✗	✓
C	Music								
C.1	Spotify Premium	Category 2	✓	✓	✓	✗	✓	✗	✓
C.2	Apple Music	Category 2	✓	✓	✓	✗	✓	✗	✓
C.3	YouTube Music Premium	Category 2	✓	✓	✓	✓	✓	✗	✓
C.4	SiriusXM	Category 3	✓	✓	✓	✓	✓	✗	✓
C.5	Pandora	Category 2	✓	✓	✓	✗	✓	✗	✓
D	Cloud Storage								
D.1	Google One (for Google Drive)	Category 2	✓	✓	✓	✓	✓	✗	✓
D.2	Dropbox Plus	Category 2	✓	✓	✓	✓	✓	✗	✓
D.3	Microsoft 365 (for OneDrive)	Category 2	✓	✓	✓	✓	✓	✗	✓
D.4	Box	Category 2	✓	✓	✓	✗	✗	✗	✓
D.5	Mega	Category 2	✓	✓	✓	✗	✗	✗	✓
E	Gaming								
E.1	PlayStation Plus (PS Plus)	Category 1	✓	✓	✓	✗	✓	✗	✓
E.2	Nintendo Switch Online	Category 1	✓	✓	✓	✓	✗	✗	✓
E.3	Xbox Game Pass	Category 1	✓	✓	✓	✓	✓	✗	✓
E.4	NVIDIA GeForce Now	Category 2	✓	✓	✓	✓	✓	✓	✓
E.5	EA Play	Category 1	✓	✓	✓	✓	✓	✗	✓
F	Food Delivery								
F.1	DoorDash DashPass	Category 1	✓	✓	✓	✓	✓	✗	✓
F.2	Uber One (for Uber Eats)	Category 1	✓	✓	✓	✓	✓	✓	✓
F.3	Instacart+	Category 1	✓	✓	✓	✓	✓	✗	✓
F.4	7-Eleven GoldPass	Category 1	✓	✓	✓	✗	✗	✗	No decline option
F.5	Hello Fresh	Category 3	✓	✓	✓	✓	✓	✓	✓
G	Live TV								
G.1	YouTube TV	Category 3	✓	✓	✓	✓	✓	✗	✓
G.2	Hulu TV	Category 3	✓	✓	✓	✓	✓	✗	✓
G.3	Sling TV	Category 3	✓	✓	✓	✓	✓	✗	✓
G.4	Fubo TV	Category 3	✓	✓	✓	✗	✗	✗	✓
H	Home Security								
H.1	Nest Aware (for Google Nest)	Category 1	✓	✓	✓	✗	✓	✓	✗
H.2	Wyze	Category 1	✓	✓	✓	✗	✓	✓	✓
H.3	SimpliSafe	Category 1	No online cancellation	✓	No online cancellation	No online cancellation	No online cancellation	No online cancellation	No online cancellation
H.4	Xfinity	Category 3	No online cancellation	✓	No online cancellation	No online cancellation	No online cancellation	No online cancellation	No online cancellation
I	News								
I.1	New York Times	Category 2	✓	✓	✓	✓	✓	✗	✓
I.2	Wall Street Journal	Category 2	✓	✓	✓	✓	✓	✗	No decline option
I.3	Washington Post	Category 2	✓	✓	✓	✓	✓	✗	✓
I.4	Gannett/USA Today	Category 2	✓	✓	✓	✗	✗	✗	✓
I.5	Substack	Category 2	✓	✓	✓	✗	✗	✗	No decline option
J	Cybersecurity								
J.1	McAfee	Category 3	✓	✓	✓	✓	✗	✗	✓
J.2	Malwarebytes	Category 3	✓	✓	✓	✓	✓	✗	✓
J.3	Avast	Category 3	✓	✓	✓	✓	✓	✓	✓
J.4	AVG	Category 3	✓	✓	✓	✓	✓	✓	✓
J.5	Webroot	Category 3	✓	✓	✓	✓	✓	✗	No decline option
Total Subscription Programs Reviewed [A]		48	48	48	48	48	48	48	48
# of Programs Not Applicable for Analysis [B]		3	0	3	3	3	3	3	7
# of Programs Applicable for Analysis [C] [A] [B]		45	48	45	45	45	45	45	41
# of Programs That Are Consistent with Amazon's Practices [D]		45	48	44	30	36	7	39	
% of Programs That Are Consistent with Amazon's Practices [E] [D] / [C]		100%	100%	98%	67%	80%	16%	95%	

Source: See Appendix D, Appendix E.

Note:

[1] Under “Website Category,” the 48 companies whose enrollment flows I analyzed can be divided into three categories based on the types of products/services they offer: (1) companies that also sell products or services other than the paid digital membership/subscription programs (e.g., Walmart, Best Buy) (“Category 1”), (2) companies that use a freemium pricing model (i.e., companies that offer a free version of their product or service alongside paid digital membership/subscription programs for premium content and services (e.g., YouTube Music, Wall Street Journal)) (“Category 2”), and (3) companies that only offer paid digital membership/subscription programs for streaming content or the services they offer (e.g. Netflix, Xfinity) (“Category 3”).

See Appendix D for more details.

[2] Costco, SimpliSafe, and Xfinity do not offer an online option to cancel their paid digital membership/subscription programs even though they each offer an online option to subscribe to their paid digital membership/subscription programs.

[3] Out of the 48 flows reviewed for the metric “The call-to-action feature for canceling the paid digital membership/subscription program (or a free trial of the program) on the final page of the cancellation flow differs in color from the call-to-action feature to remain enrolled in the program,” 3 flows (i.e., cancellation flows for Costco, SimpliSafe, and Xfinity) did not offer online cancellation options, and 4 flows (i.e. cancellation flows for 7-Eleven GoldPass, Wall Street Journal, Substack, and Webroot) did not contain a call-to-action feature to remain enrolled in the cancellation flow. For these websites, a call-to-action feature to remain enrolled was not provided, however consumers could choose not to cancel the paid digital membership/subscription program or free trial of the program by actions such as leaving the website or closing the overlay (if applicable) by clicking on the “X” on the top corner of the overlay. Results for this UI design element were calculated based on the 41 flows that did have both call-to-action features to cancel and remain enrolled on the final page of the cancellation flow. *See Appendix D, Appendix D.1* for more details.

(9) The “manage my account” webpage includes a feature that a consumer can click to advance to the cancellation flow

293. The FTC alleges that Amazon uses a “dark pattern” of “obstruction” in the desktop cancellation flow by making the ingress to the flow “difficult for consumers to locate.”⁴⁷⁸ Counsel asked me to analyze the programs I reviewed to assess whether consumers can advance to the desktop cancellation flow from the “manage my account” page to evaluate the ingress point to desktop cancellation flow, as shown in Exhibit 75.⁴⁷⁹

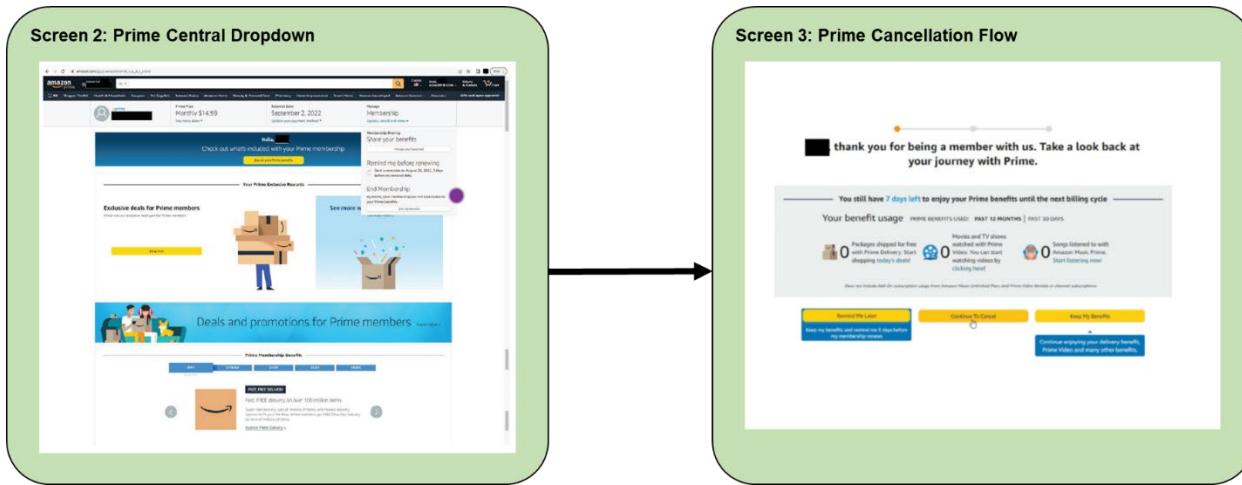
294. I reviewed the cancellation processes of 48 popular paid digital membership/subscription programs to assess whether the “manage my account” webpage included a feature that a consumer could click to advance to the cancellation flow. This includes instances where the “manage my account” webpage included a feature to start the cancellation flow immediately or instances where the “manage my account” webpage included features that would advance the consumer to additional webpages through which the consumer can start (or further advance to) the cancellation flow. For example, Spotify Premium, one of the most popular music paid digital membership/subscription programs,⁴⁸⁰ required consumers to navigate to a dropdown menu on the top right corner of its website’s landing page and select “Account,” to take the consumer to a “manage my account” page where the consumer can start the cancellation flow, as shown in Exhibit 76. I identified Spotify Premium as a paid digital membership/subscription program that had a similar at-issue UI design element in its desktop cancellation process as Amazon Prime. I found that all programs with online cancellation (45 programs, 100%) had a “manage my account” page that included a feature that a consumer could click to advance to the cancellation flow.

⁴⁷⁸ Amended Complaint, ¶ 231.c.ii.

⁴⁷⁹ Amended Complaint, ¶¶ 131–133.

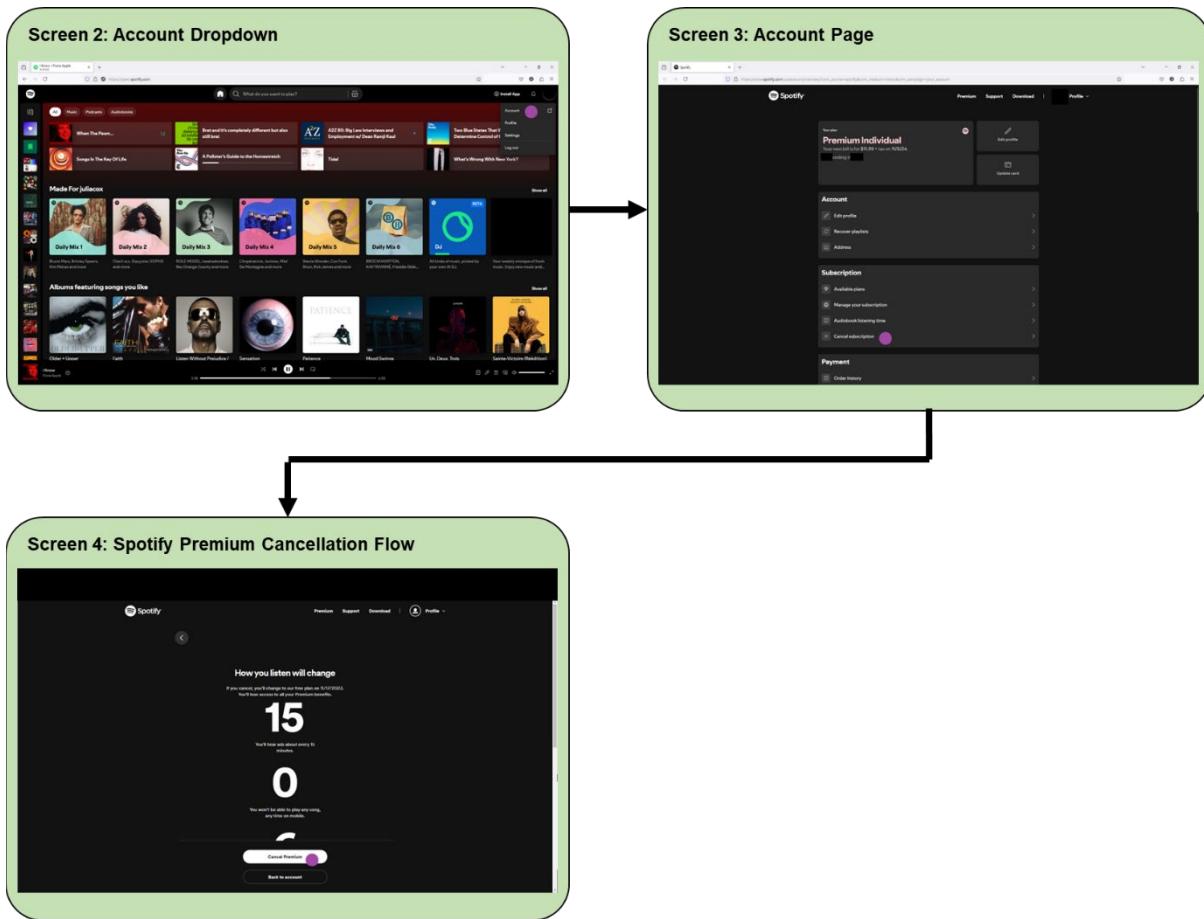
⁴⁸⁰ See Appendix D.

Exhibit 75 Advance to the Cancellation Flow Through Prime Central for Amazon



Source: Amended Complaint, Attachment Q.

Exhibit 76 Advance to the Cancellation Flow Through “Manage My Account Page” for Spotify Premium



Source: Appendix E, Spotify, Cancellation.

(10) The website's landing page does not include a feature the consumer can click to start the cancellation flow

295. The FTC alleges that Amazon's cancellation ingress placement on the "manage my account" page is "difficult for consumers to locate."⁴⁸¹ Counsel asked me to analyze the programs I reviewed to assess whether a call-to-action feature that can start the cancellation flow for the paid digital membership/subscription program (or a free trial of the program) was provided on the website's landing page.

296. I reviewed the cancellation processes of 48 popular paid digital membership/subscription programs to assess whether the website's landing page included a feature the consumer could click to start the cancellation flow. I found that not a single company (0%) in my analysis provided such a feature on its landing page.

(11) The cancellation flow involves navigating multiple webpages

297. The FTC further alleges that Amazon "forc[es] the consumer to proceed through multiple screens to cancel their subscription," citing it as evidence of "forced action."⁴⁸² Specifically, the FTC alleges that "to complete the Iliad Flow and cancel a Prime membership, the consumer needed to click a minimum of six times from Amazon.com: Prime Central → 'Manage Membership' → 'End Membership' → 'Continue to Cancel' → 'Continue to Cancel' → 'End Now.'"⁴⁸³ This cancellation flow is shown in Exhibit 77.

298. I reviewed the cancellation processes of 48 popular paid digital membership/subscription programs to assess whether their desktop cancellation flows⁴⁸⁴ involved navigating multiple

⁴⁸¹ Amended Complaint, ¶ 231.c.ii.

⁴⁸² Amended Complaint, ¶ 231.a.ii

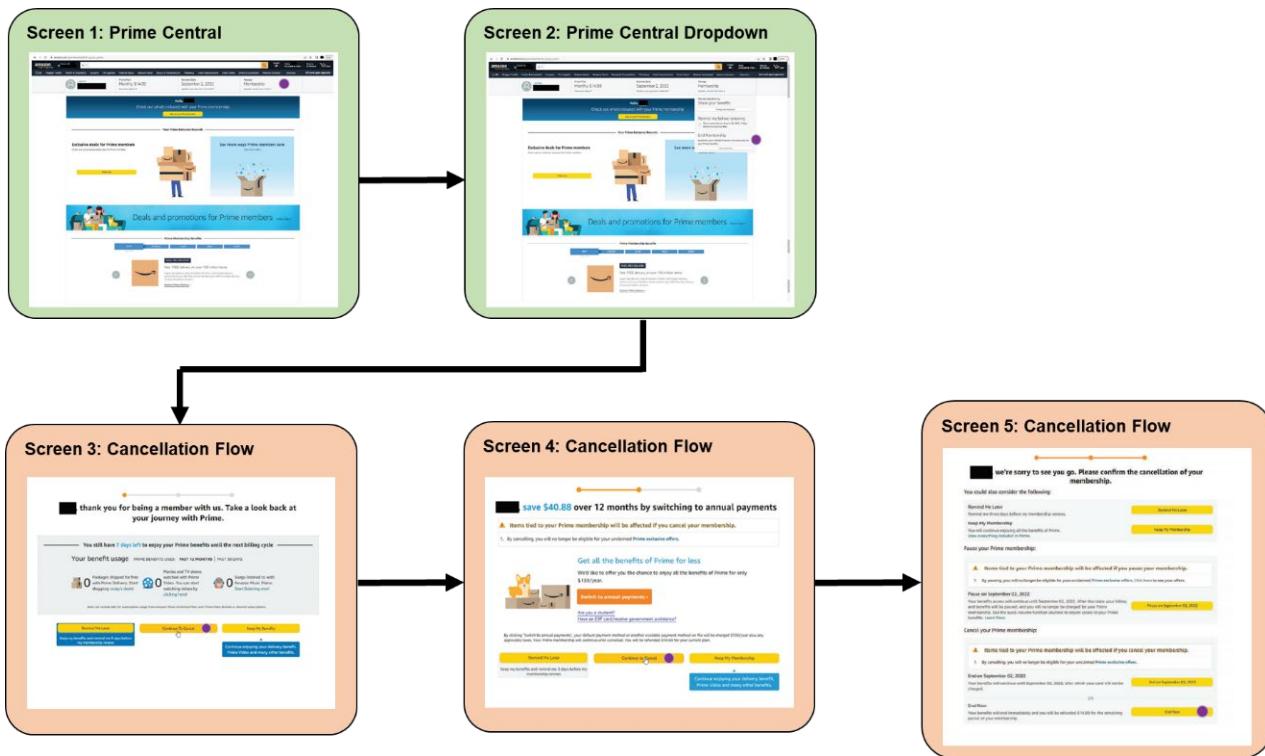
⁴⁸³ Amended Complaint, ¶ 154.

⁴⁸⁴ For the purpose of this analysis, I define the cancellation flow as follows. The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says "Unsubscribe," "Cancel membership," or similar that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). The cancellation flow ends on the webpage where the consumer clicks on the call-to-action feature that results in the consumer no longer being enrolled in the paid digital membership/subscription program (or a free trial of the program).

websites.⁴⁸⁵ For example, as shown in Exhibit 78, to cancel a free trial of Walmart+, consumers needed to navigate through two websites: (1) select a “Cancel free trial” link on the “manage membership” webpage (Screen 4); (2) review an overlay where a consumer confirmed that they want to cancel, where the overlay reminded the consumer of the benefits that the consumer would lose, and offered consumer an alternative option to “Remind me later” (Screen 5). Thus, I identified Walmart+ as a paid digital membership/subscription program that had a similar at-issue UI design element in its desktop cancellation process as Amazon Prime. I found that nearly all programs with online cancellation (44 programs, 98%) that I reviewed had a cancellation flow that involved navigating multiple websites.

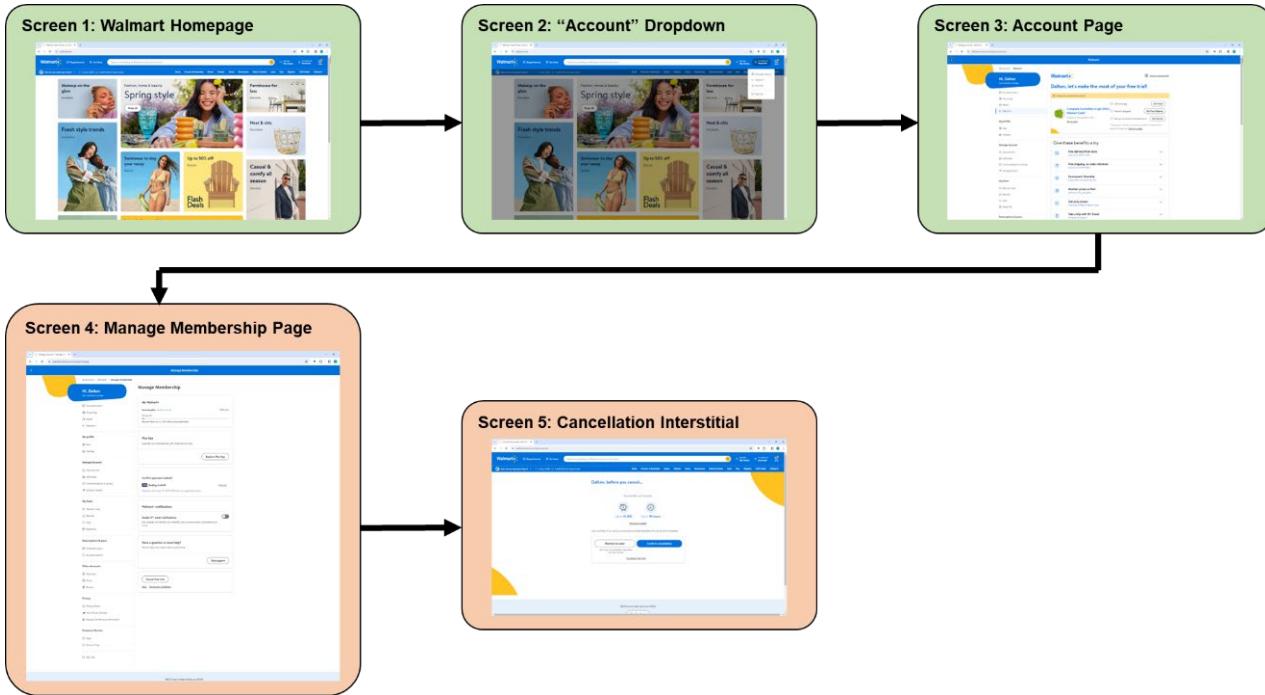
⁴⁸⁵ I use the number of websites a consumer needs to navigate through as a lower bound for the number of clicks that the FTC complains about, as multiple clicks might be required to go through a webpage.

Exhibit 77 Prime Cancellation Flow (Prime Central)



Source: Amended Complaint, Attachment Q.

Exhibit 78 Walmart+ Free Trial Cancellation Flow



Source: Appendix E, Walmart+, Cancellation.

(12) Call-to-action features for alternatives to immediately cancelling the paid digital membership/subscription program (or a free trial of the program) are present in the cancellation flow

299. The FTC references alternative options to immediately cancelling Prime that Amazon presents to consumers within its desktop cancellation flow as evidence of alleged “obstruction,” and states that Amazon “forc[es] consumers who have already expressed an intent to cancel by locating and entering the Iliad Flow to view marketing and reconsider options other than cancellation.”⁴⁸⁶ For example, the FTC states that on the third page of Amazon’s desktop cancellation flow, Amazon “showed consumers five different options, only one of which, ‘End Now’—presented last, at the bottom of the page—immediately cancelled a consumer’s Prime membership.”⁴⁸⁷ The alternative options other than cancelling Prime immediately on this page, per the FTC include, but are not limited to, the following call-to-action features: “Remind Me Later,” “Pause on [date],” and “End on [date].”⁴⁸⁸ These options are shown in Exhibit 79.

300. I reviewed the cancellation processes of 48 popular paid digital membership/subscription programs to assess whether any of the webpages within the company’s desktop cancellation flow presented the consumer with call-to-action features for alternatives other than cancelling immediately. In my evaluation, I excluded call-to-action features for maintaining the status quo before entering the cancellation flow (e.g., remaining a member of the program via call-to-action features to “Keep My Membership,” “Keep My Account”) from alternative options as they are *not* alternatives to immediately cancelling that the FTC is focused on.⁴⁸⁹ Rather, I analyzed the webpages within the cancellation flows for call-to-action features such as those for reviewing the benefits of the paid digital membership/subscription program, receiving a temporary discount to the price of the digital membership/subscription program, switching to a different digital membership/subscription program, pausing the digital membership/subscription program, receiving reminders to cancel the digital membership/subscription program at a later time, or

⁴⁸⁶ Amended Complaint, ¶ 231.c.ii.

⁴⁸⁷ Amended Complaint, ¶ 147.

⁴⁸⁸ Amended Complaint, ¶¶ 148–153.

⁴⁸⁹ Specifically, this analysis assessed whether any alternative call-to-action features for alternatives to immediately canceling are present on any of the webpages within the cancellation flow that the consumer encounters after the webpage on which they start the cancellation flow. *See Appendix D.1.*

canceling the digital membership/subscription program on a specific date in the future. For example, a consumer navigating the desktop cancellation flow of free trial of Walmart+, one of the most popular paid digital membership/subscription delivery programs,⁴⁹⁰ was presented with a “Remind me later” call-to-action, one of the options that the FTC identifies as an example of “obstruction” in Amazon’s desktop cancellation flow, as shown in Exhibit 80. Thus, I identified Walmart+ as a paid digital membership/subscription program that had a similar at-issue UI design element in its desktop cancellation process as Amazon Prime. I found that majority of the programs that allowed for online cancellation (30 programs, 67%) presented consumers with alternatives to immediately cancelling the program (or the free trial of the program) within the cancellation flow during the desktop cancellation process.

⁴⁹⁰ See Appendix D.

Exhibit 79 Call-to-Action Features in Amazon Cancellation Flow Highlighted by the FTC

The screenshot shows a sequence of three cancellation options:

- we're sorry to see you go. Please confirm the cancellation of your membership.** (The first button is highlighted with a red box.)
- Remind Me Later** (The second button is highlighted with a red box.)
- Keep My Membership**

Pause your Prime membership:

⚠ Items tied to your Prime membership will be affected if you pause your membership.

1. **By pausing, you will no longer be eligible for your unclaimed Prime exclusive offers. Click here to see your offers.**

Pause on September 02, 2022 (The button is highlighted with a red box.)

Your benefits access will continue until September 02, 2022. After that date, your billing and benefits will be paused, and you will no longer be charged for your Prime membership. Use the quick-resume function anytime to regain access to your Prime benefits. [Learn More.](#)

Cancel your Prime membership:

⚠ Items tied to your Prime membership will be affected if you cancel your membership.

1. **By cancelling, you will no longer be eligible for your unclaimed Prime exclusive offers.**

End on September 02, 2022 (The button is highlighted with a red box.)

Your benefits will continue until September 02, 2022, after which your card will not be charged.

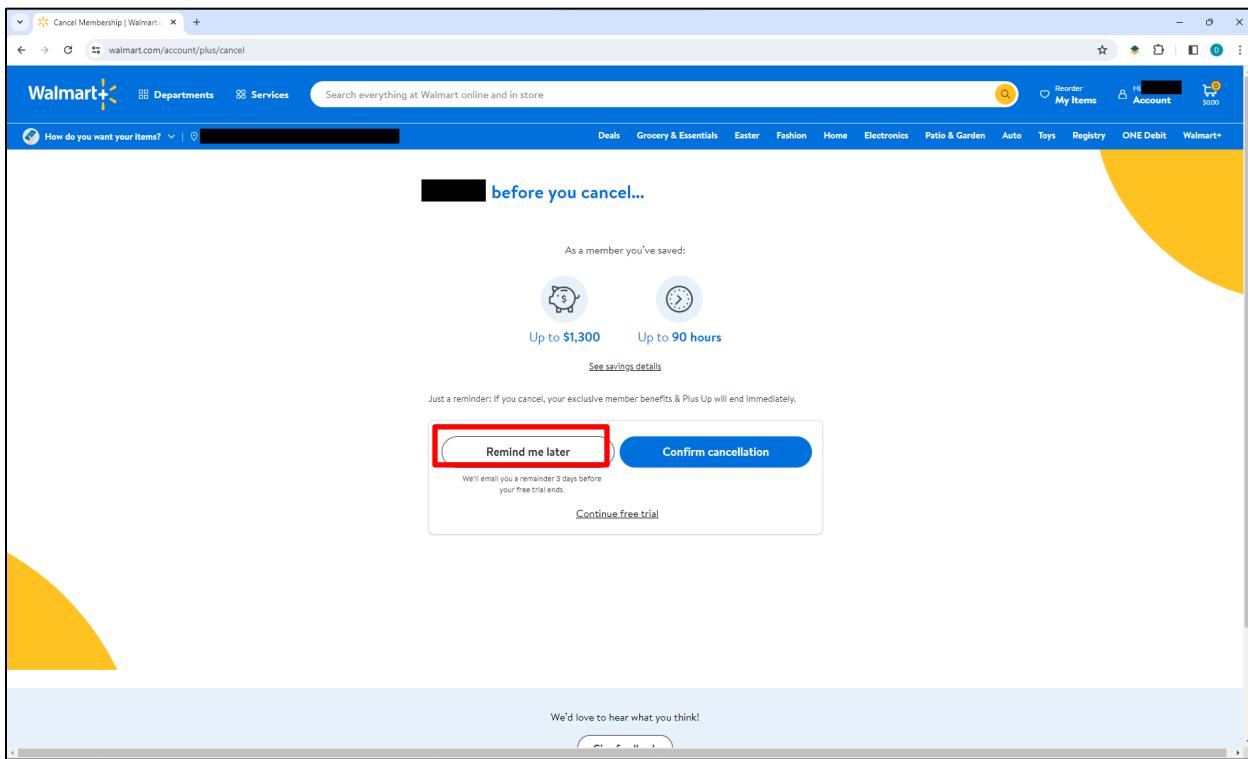
OR

End Now (The button is highlighted with a purple circle.)

Your benefits will end immediately and you will be refunded \$14.99 for the remaining period of your membership.

Source: Amended Complaint, Attachment Q, page 5.

Note: Red boxes added for emphasis.

Exhibit 80 Call-to-Action Features in Walmart+ Cancellation Flow

Source: Appendix E, Walmart+, Cancellation.

Note: Red box added for emphasis.

(13) The cancellation flow mentions benefits of the paid digital membership/subscription program

301. The FTC references Amazon's display of Prime membership benefits during its desktop cancellation flow, shown in Exhibit 81, as evidence of alleged "obstruction" and "misdirection."⁴⁹¹ Specifically, the FTC states that "[o]n the first page of the Iliad Flow, Amazon forced consumers to '[t]ake a look back at [their] journey with Prime' and presented them with a summary showing the Prime services they used. Amazon also displayed marketing material on Prime services, such as Prime Delivery, Prime Video, and Amazon Music Prime."⁴⁹²

302. I reviewed the cancellation processes of 48 popular paid digital membership/subscription programs to assess whether the companies mentioned the benefits of their paid digital membership/subscription programs during their desktop cancellation flows, similar to Amazon's

⁴⁹¹ Amended Complaint, ¶¶ 231.c.ii, 231.d.iii.

⁴⁹² Amended Complaint, ¶ 141.

display of benefits, as depicted in Exhibit 81. For example, Instacart+, one of the most popular food delivery paid digital membership/subscription programs,⁴⁹³ presented consumers with a webpage that displayed the benefits of the paid digital membership/subscription program (including unlimited free delivery, lower service fees, and credit back on pickup) in its desktop cancellation process for free trial of Instacart+, as shown in Exhibit 82. Similarly, Dropbox Plus, one of the most popular paid digital membership/subscription cloud storage programs, displayed “important features” consumers would lose, including “Mobile offline folders,” “Remote device wipe,” and “Priority email support” if they continued to cancel the paid digital subscription during its desktop cancellation process, as seen in Exhibit 83. Thus, I identified Instacart+ and Dropbox Plus as paid digital membership/subscription programs that had similar at-issue UI design elements in their cancellation processes as Amazon Prime. I found that most programs that allow for online cancellation (36 programs, 80%) mentioned the benefits of their paid digital membership/subscription program during their desktop cancellation flow.

⁴⁹³ See Appendix D.

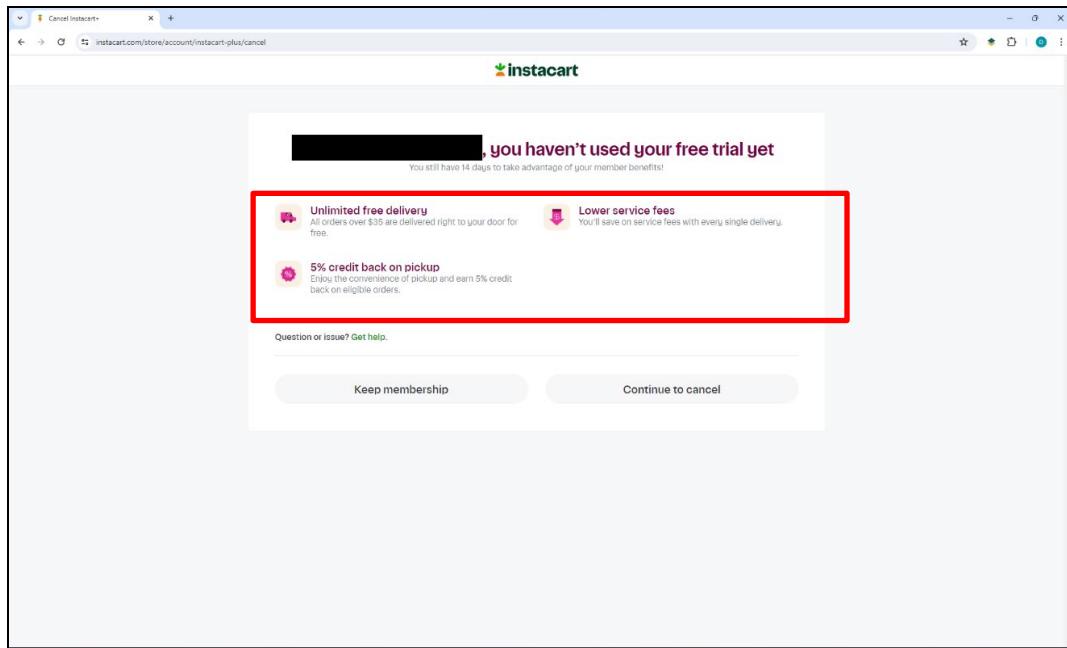
Exhibit 81 Benefits Mentioned in Prime Cancellation Flow Highlighted by the FTC

The screenshot shows a cancellation flow for Amazon Prime. At the top, a message says: "██████████ thank you for being a member with us. Take a look back at your journey with Prime." Below this, a red box highlights a section titled "Your benefit usage" with the sub-sections "PRIME BENEFITS USED: PAST 12 MONTHS | PAST 30 DAYS". This section lists three items: "0 Packages shipped for free with Prime Delivery. Start shopping today's deals!", "0 Movies and TV shows watched with Prime Video. You can start watching videos by clicking here!", and "0 Songs listened to with Amazon Music Prime. Start listening now!". A small note at the bottom of this section states: "Does not include Add-On subscription usage from Amazon Music Unlimited Plan, and Prime Video Rentals or channel subscriptions." At the bottom, there are three buttons: "Remind Me Later" (blue button with white text), "Continue To Cancel" (yellow button with a purple circular icon and a cursor arrow pointing to it), and "Keep My Benefits" (yellow button with black text). A callout box above the "Keep My Benefits" button says: "Continue enjoying your delivery benefit, Prime Video and many other benefits."

Source: Amended Complaint, Attachment Q, page 4.

Note: Red box added for emphasis.

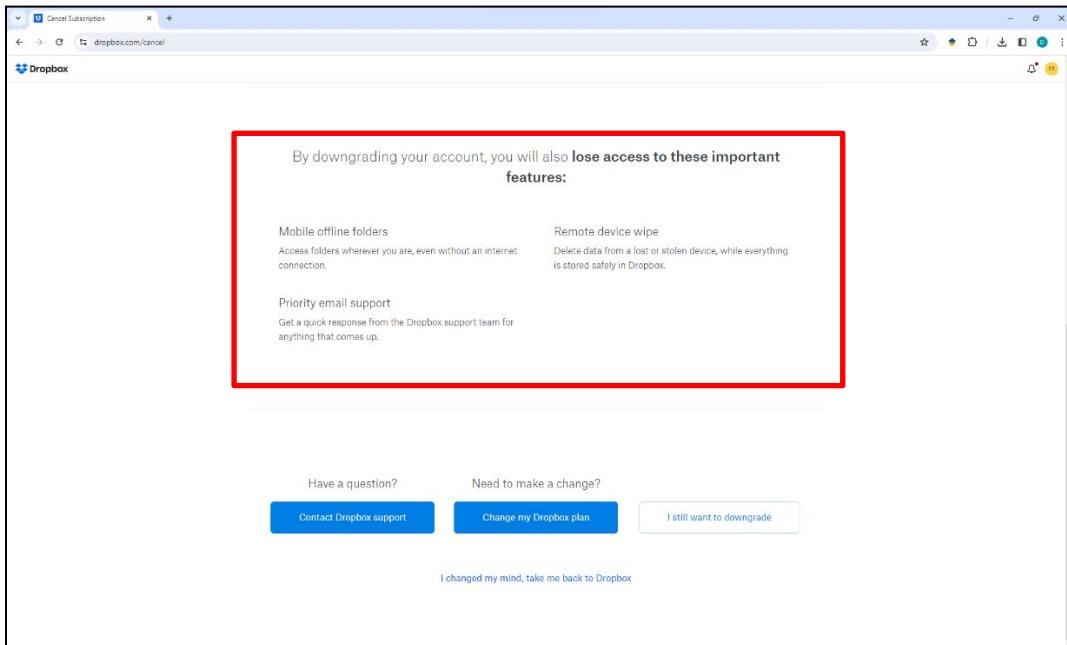
Exhibit 82 Benefits Mentioned in Instacart+ Free Trial Cancellation Flow



Source: Appendix E, Instacart+, Cancellation.

Note: Red box added for emphasis.

Exhibit 83 Benefits Mentioned in Dropbox Plus Cancellation Flow



Source: Appendix E, Dropbox Plus, Cancellation.

Note: Red box added for emphasis.

(14) The cancellation flow includes warning icons

303. The FTC references a warning icon (a yellow triangle containing a boldface exclamation point inside) in the Prime cancellation flow that is placed next to text reminding consumers that their Prime exclusive offers would be affected if they cancel Prime,⁴⁹⁴ as evidence of alleged “interface interference.”⁴⁹⁵ This reminder is shown in Exhibit 84. Specifically, the FTC alleges that “by employing warning icons near the option to cancel, [Amazon] evokes anxiety and fear of loss in consumers.”⁴⁹⁶

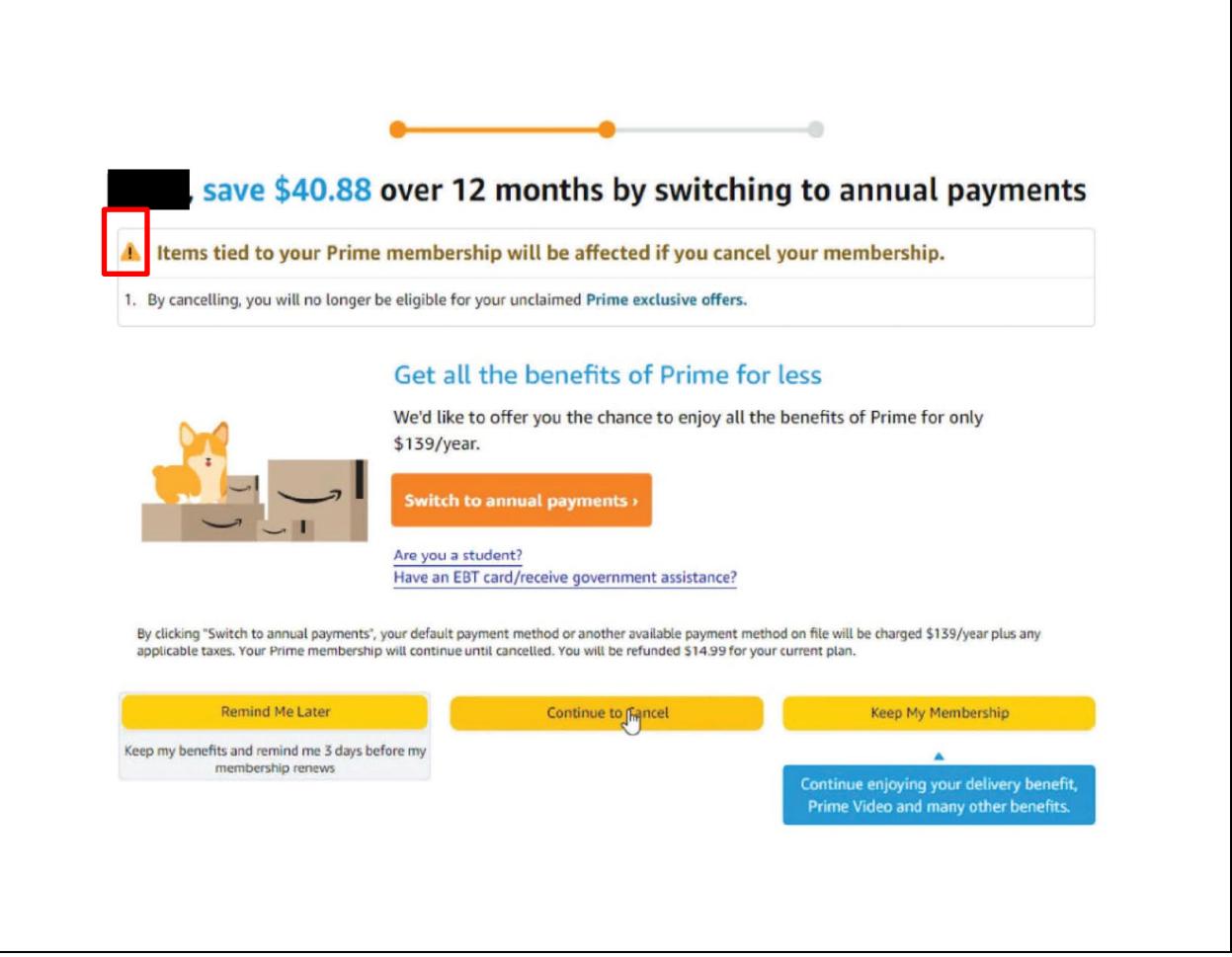
304. I reviewed the desktop cancellation processes of 48 popular paid digital membership/subscription programs to assess whether the company’s desktop cancellation flow featured symbols or icons similar to the one FTC identifies for Amazon as a warning icon. For example, the desktop cancellation flow of Google Nest Aware, one of the most popular paid digital membership/subscription home security programs,⁴⁹⁷ displayed a white triangle containing an exclamation point inside at the top of the overlay where consumers were reminded about the features they would lose once they cancel their subscription, as seen in Exhibit 85. Thus, I identified Google Nest Aware as a paid digital membership/subscription program that had a similar at-issue UI design element in its desktop cancellation process as Amazon Prime. I found that 7 programs (16% among programs that allow for online cancellations), contained “warning icons” in their desktop cancellation flow.

⁴⁹⁴ Amended Complaint, ¶¶ 144–145.

⁴⁹⁵ Amended Complaint, ¶ 231.b.

⁴⁹⁶ Amended Complaint, ¶ 231.b.ii.

⁴⁹⁷ See Appendix D.

Exhibit 84 Warning Icon in Amazon Cancellation Flow Highlighted by the FTC


save \$40.88 over 12 months by switching to annual payments

Items tied to your Prime membership will be affected if you cancel your membership.

1. By cancelling, you will no longer be eligible for your unclaimed Prime exclusive offers.

Get all the benefits of Prime for less

We'd like to offer you the chance to enjoy all the benefits of Prime for only \$139/year.



Switch to annual payments >

Are you a student?
Have an EBT card/receive government assistance?

By clicking "Switch to annual payments", your default payment method or another available payment method on file will be charged \$139/year plus any applicable taxes. Your Prime membership will continue until cancelled. You will be refunded \$14.99 for your current plan.

Remind Me Later

Keep my benefits and remind me 3 days before my membership renews

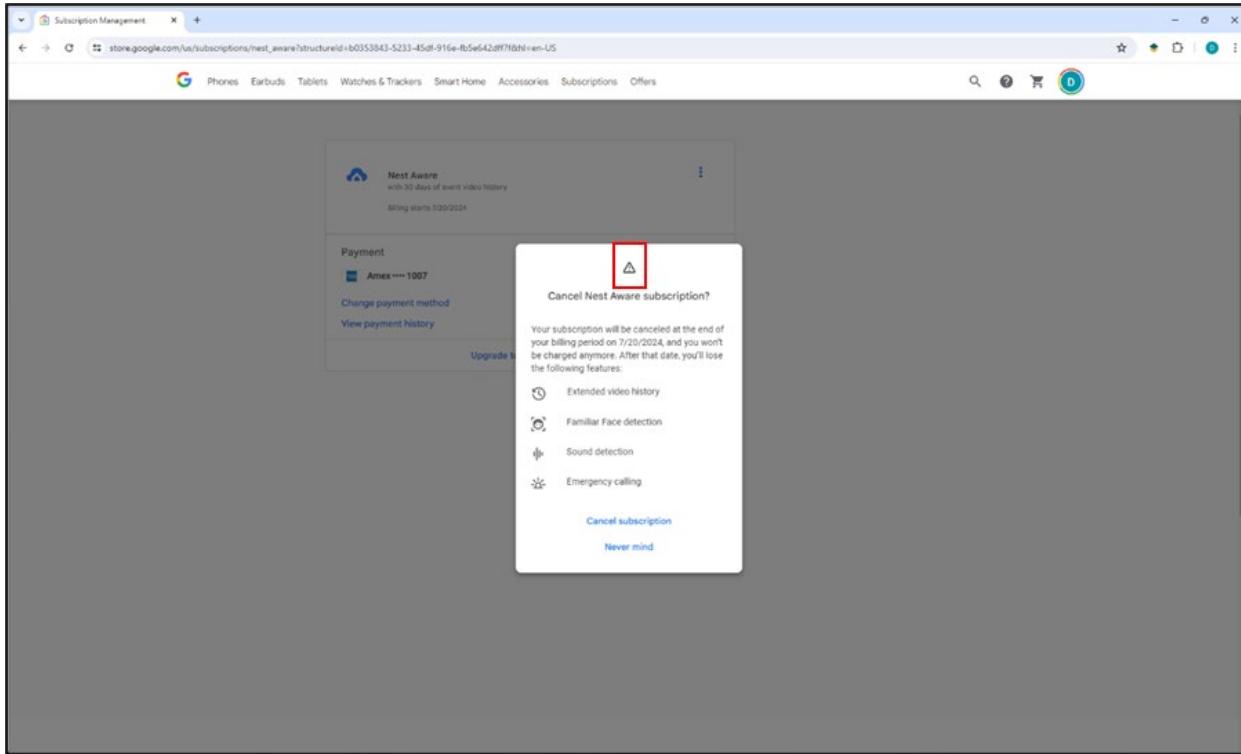
Continue to Cancel

Keep My Membership

Continue enjoying your delivery benefit, Prime Video and many other benefits.

Source: Amended Complaint, Attachment Q, page 4.

Note: Red box added for emphasis.

Exhibit 85 Warning Icon in Google Nest Aware Cancellation Flow


Source: Appendix E, Nest Aware (Google Nest), Cancellation.

Note: Red box added for emphasis.

(15) Call-to-action feature to cancel the paid digital membership/subscription program (or a free trial of the program) and the call-to-action feature to remain enrolled in the program that are presented on the same page of the cancellation flow differ in color

305. The FTC alleges that Amazon presents “asymmetric choices that make it easier to abandon an attempted Prime cancellation than to complete it,” in its desktop cancellation flow, citing it as evidence of “misdirection.”⁴⁹⁸ Specifically, the FTC claims that Amazon “uses attractors such as animation, a contrasting color blue, and text to draw consumers’ attention to ‘Remind me later’ and ‘Keep my benefits’ options rather than ‘Continue to Cancel.’”⁴⁹⁹ These options FTC focuses on are shown in Exhibit 86.

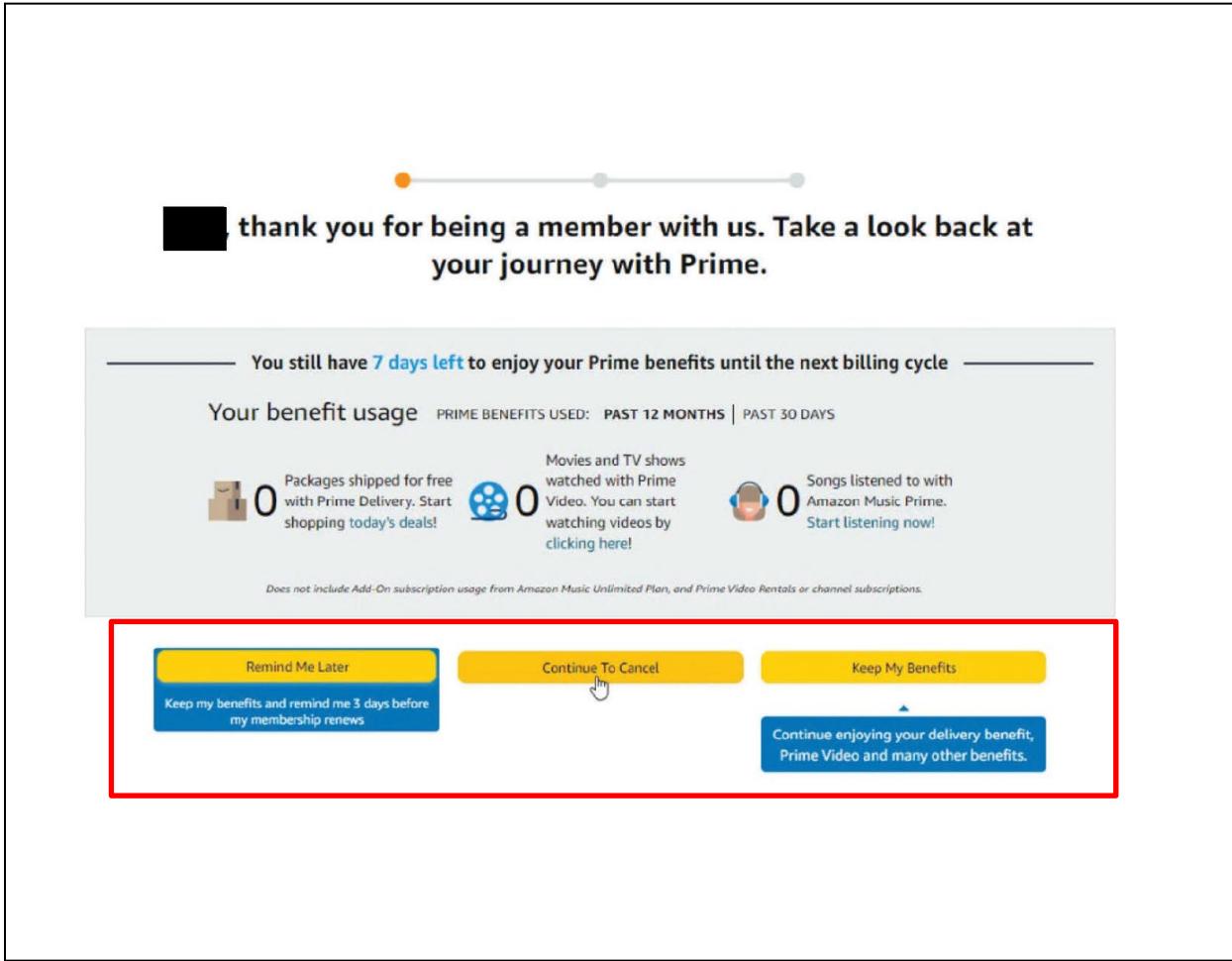
⁴⁹⁸ Amended Complaint, ¶ 231.d.iii.

⁴⁹⁹ Amended Complaint, ¶ 231.d.iii.

306. I reviewed the cancellation processes of 48 popular paid digital membership/subscription programs to assess whether the company's desktop cancellation flow had webpages that contained call-to-action features for cancelling the program (or a free trial of the program) that differed in color from the call-to-action features to remain enrolled in the program presented on the same page. For example, as shown in Exhibit 87, consumers navigating the desktop cancellation flow for the free trial of DoorDash are presented with a page featuring call-to-action features where the call-to-action to cancel and the call-to-action to remain enrolled are presented in different colors. Thus, I identified DoorDash Dash Pass as a paid digital membership/subscription program that had a similar at-issue UI design element in its cancellation process as Amazon Prime. Of the paid digital membership/subscription programs I examined, 41 programs had call-to-action features for *both* cancelling the program and remaining enrolled in the program on the same page of the cancellation flow. My analysis of these 41 programs found that most programs (39 programs, 95%) presented call-to-action features to cancel and those to remain enrolled in the program in different colors.⁵⁰⁰

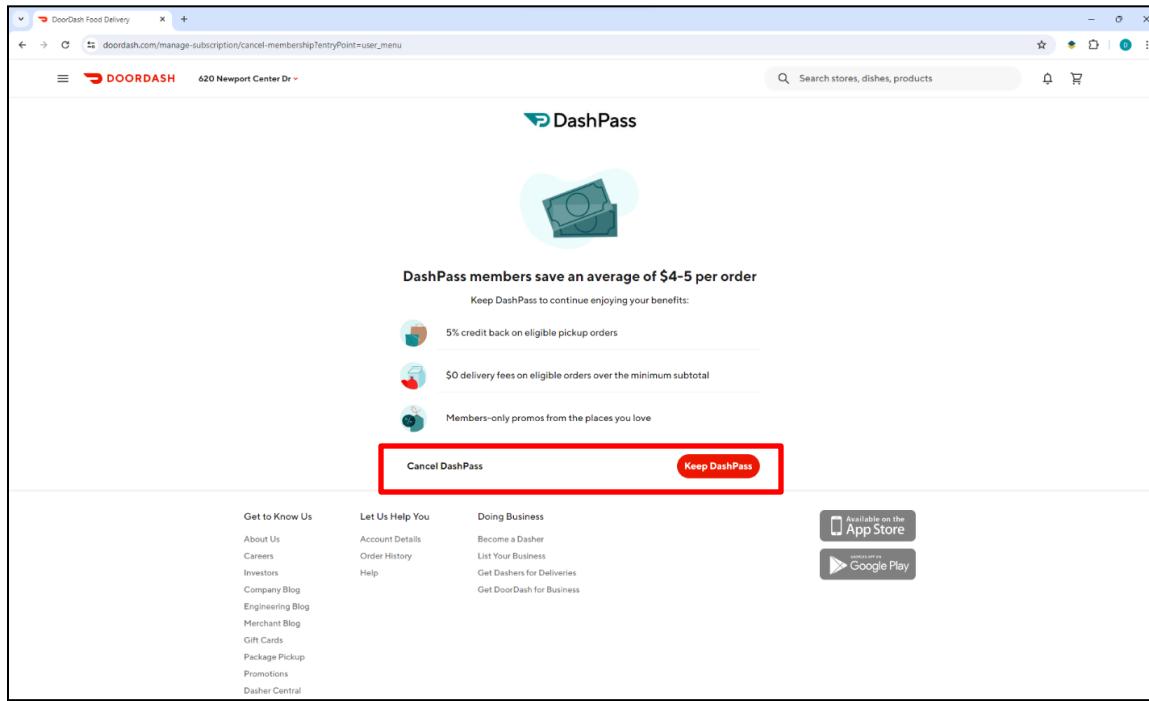
⁵⁰⁰ Of the remaining 7 flows, 3 flows did not allow for online cancellations, and 4 flows did not contain a call-to-action feature for remaining enrolled in the program on the same page as the call-to-action feature for cancelling (i.e., consumers could choose not to cancel these 4 paid digital membership/subscription programs by actions such as leaving or closing the webpage). See **Appendix D**.

Exhibit 86 Call-to-Action Features for Cancelling and Remaining Enrolled for Prime as Highlighted by the FTC



Source: Amended Complaint, Attachment Q, page 3.

Note: Red box added for emphasis.

Exhibit 87 Call-to-Action Features for Cancelling and Remaining Enrolled for DoorDash DashPass


Source: Appendix E, DoorDash DashPass, Cancellation.

Note: Red box added for emphasis.

307. In summary, a review of enrollment and cancellation processes for 48 popular paid digital membership/subscription programs revealed that the at-issue UI design elements (or those similar to them) were commonly used online. This suggests that many consumers are likely to have encountered these or similar UI design elements in various online contexts, and such prior encounters would have informed how consumers would interact with the at-issue UI design elements on the Amazon website.

B. The At-Issue UI Design Elements Which Are Applicable to Government Websites Are Also Commonly Used in the Top 30 U.S. Government Websites

308. In addition to reviewing paid digital membership/subscription programs, I reviewed a set of most visited government websites, because these websites are frequently visited by internet

users,⁵⁰¹ and all follow government-mandated standards designed to “improve customer experience” when visiting such websites.⁵⁰² I found that the UI design elements at-issue (or those similar to them) that were applicable to government websites were commonly used by the government websites I analyzed. The results of my analysis suggest that the use of these at-issue UI design elements is common online.

309. To perform my analysis, I reviewed the top 30 most visited government websites⁵⁰³ in 2023 and assessed whether they contained UI design elements that are the same or similar to the ones that are at issue. I identified the most visited government websites using [analytics.usa.gov](https://www.analytics.usa.gov), an official website of the U.S. government, which records monthly visit data across all federal government websites.⁵⁰⁴ In addition to these websites, I also reviewed the Plaintiff FTC’s website, which was ranked 65th among the most visited government websites, bringing my total number of government websites reviewed to 31.⁵⁰⁵

310. Government agencies are non-profit organizations that offer consumers information about government services or benefits, without the need to employ marketing efforts to promote sales. Thus, not surprisingly, none of the government websites I reviewed offered paid digital membership/subscription services. Therefore, all but two of the UI design elements I previously analyzed for company websites were not applicable to the government websites. Specifically, I find that the two UI design elements at-issue that are applicable to government websites are: (1) the government website uses an overlay,⁵⁰⁶ and (2) the call-to-action feature to decline the action proposed on the overlay differs in color and/or size from the call-to-action feature to accept the

⁵⁰¹ “Part 1: Who Visits Government Web Sites and What They Do,” *Pew Research Center*, April 3, 2002, <https://www.pewresearch.org/internet/2002/04/03/part-1-who-visits-government-web-sites-and-what-they-do/>.

⁵⁰² “Requirements for Delivering a Digital-First Public Experience,” *Digital.gov*, <https://digital.gov/resources/delivering-digital-first-public-experience/>.

⁵⁰³ “Data Definitions,” *analytics.usa.gov*, <https://analytics.usa.gov/definitions> (“A federal government website is a unique discoverable hostname or Uniform Resource Identifier (URI) that responds to a HyperText Transfer Protocol (HTTP) protocol which has been made available by a Federal executive branch entity.”).

⁵⁰⁴This website contains data on the number of visits to each federal government website by calendar year, as well as by week or by month. Filtering the dataset to 2023, I calculate the total number of visits to each government agency’s website in that year. If a government agency has multiple websites listed, I aggregate the number of visits across all of its websites. I also remove websites from the sample if the government agency is unknown, such as “secure.login.gov.” After combining duplicate government agencies and removing unknown government agencies, I use the aggregated number of visits to determine the overall rankings.

⁵⁰⁵ See **Appendix D**.

⁵⁰⁶ As I discussed previously, the FTC referenced Amazon’s use of the UPDP page as an interstitial in its Amended Complaint, citing it as evidence of alleged “forced action.” Amended Complaint, ¶ 231.a.

action proposed on the overlay.⁵⁰⁷ For the purposes of this analysis, I considered the call-to-action features to be prompts that offer the user choices of action (e.g., prompts such as “continue,” “go,” or similar for accepting and “no thanks,” “cancel” or similar for declining) typically in the form of buttons or hyperlinks. I did not consider an “X” in the corner of an overlay as a call-to-action feature for declining.

311. I analyzed the popular government websites I identified for these two UI design elements, and found that the majority of these websites (17 out of 31, or 55%) used overlays. Among the 17 government websites that used overlays, 12 government websites included both accept and decline call-to-action features on the overlay, and nearly all of them (11 out of 12, or 92%) employed UI designs that contained call-to-action features for accepting and declining the proposed action on the overlay that differed in color and/or size. Exhibit 88, below provides a summary of my findings.

⁵⁰⁷ The FTC also referenced an alleged visual imbalance between the options to accept or decline the Prime offer on Amazon’s UPDP page, citing it as evidence of alleged “dark patterns” such as “forced action,” “obstruction,” and “misdirection.” Amended Complaint, ¶¶ 38, 231. See **Appendix D.2.**

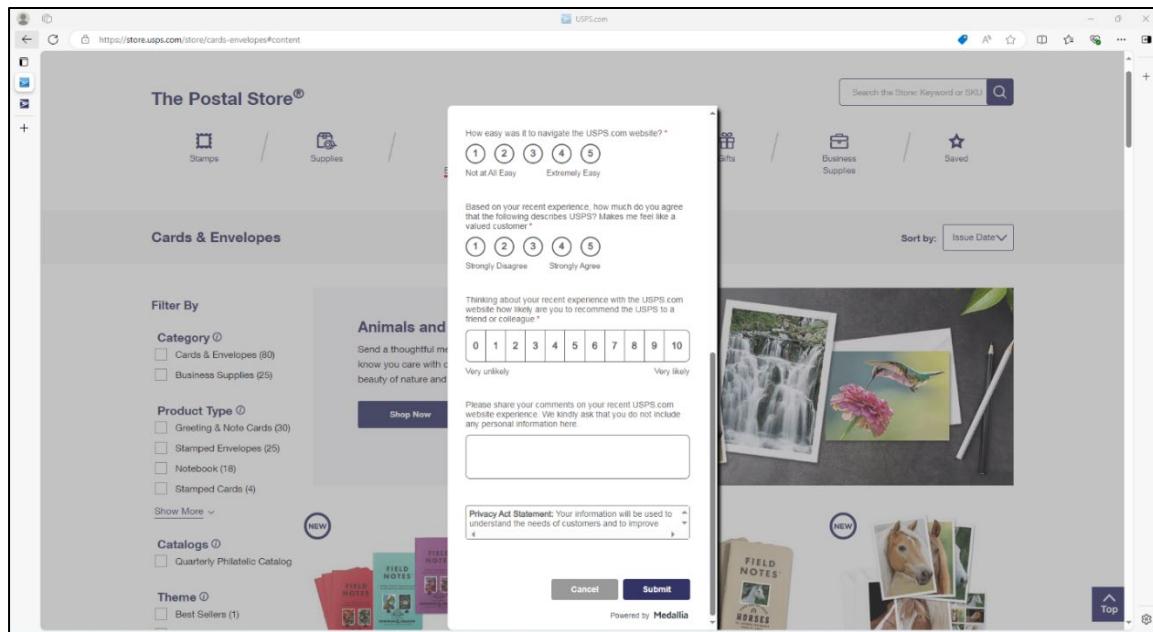
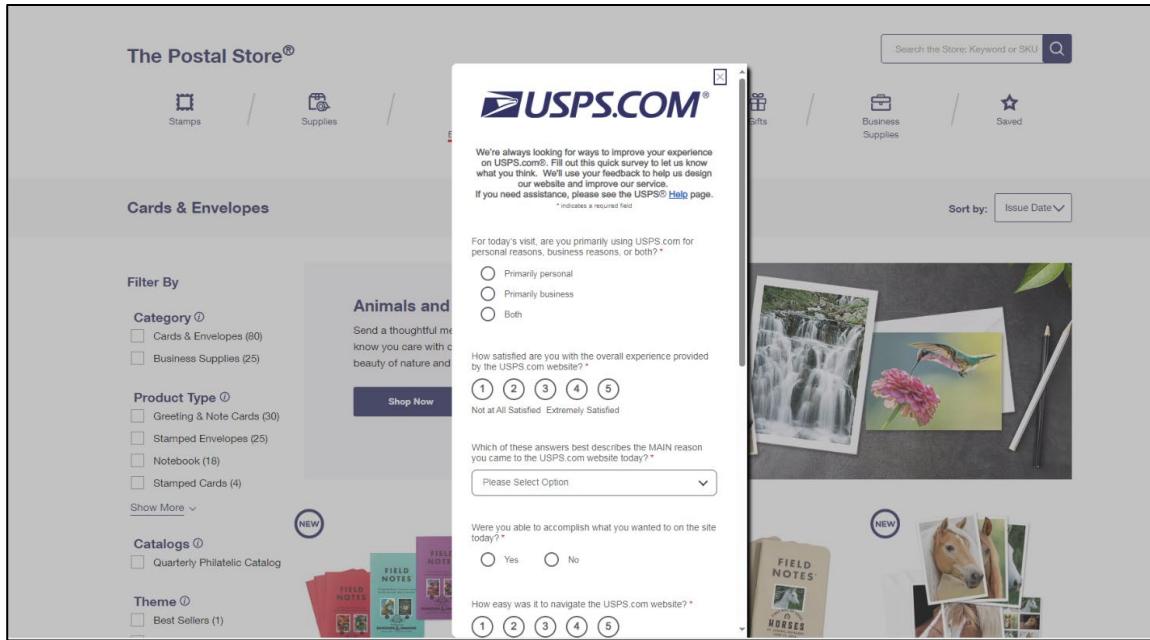
Exhibit 88 U.S. Government Website Comparative Analysis

Rank	Government Website	URL	At-issue Design Element	
			The government website uses an overlay	Call-to-action feature to decline differs in color and/or size from call-to-action feature to accept
1.	U.S. Postal Service	usps.com	✓	✓
2.	National Center for Biotechnology Information	ncbi.nlm.nih.gov	✗	No overlay
3.	National Weather Service	weather.gov	✓	✓
4.	Internal Revenue Service	irs.gov	✗	No overlay
5.	Centers for Disease Control	cdc.gov	✓	✓
6.	MedlinePlus	medlineplus.gov	✓	No decline option
7.	Bureau of Consular Affairs	travel.state.gov	✓	✓
8.	U.S. Citizenship and Immigration Services	uscis.gov	✓	✓
9.	Department of Veterans Affairs	va.gov	✓	✓
10.	Social Security Administration	ssa.gov	✗	No overlay
11.	USA Jobs	usajobs.gov	✗	No overlay
12.	U.S. Customs and Border Protection	cbp.gov	✓	✗
13.	National Park Service	nps.gov	✓	No decline option
14.	Federal StudentAid	studentaid.gov	✗	No overlay
15.	National Hurricane Center	nhc.noaa.gov	✗	No overlay
16.	Food and Drug Administration	fda.gov	✓	✓
17.	National Aeronautics and Space Administration	nasa.gov	✗	No overlay
18.	U.S. Geological Survey	usgs.gov	✓	✓
19.	Transportation Security Administration	tsa.gov	✗	No overlay
20.	USA.gov	usa.gov	✓	✓
21.	U.S. Department of Justice	justice.gov	✗	No overlay
22.	Securities and Exchange Commission	sec.gov	✓	✓
23.	Medicare.gov	medicare.gov	✓	No decline option
24.	National Cancer Institute	cancer.gov	✗	No overlay
25.	The White House	whitehouse.gov	✗	No overlay
26.	Healthcare.gov	healthcare.gov	✓	No decline option
27.	National Heart, Lung, and Blood Institute	nhlbi.nih.gov	✗	No overlay
28.	U.S. Patent and Trademark Office	uspto.gov	✗	No overlay
29.	Bureau of Labor Statistics	bls.gov	✓	No decline option
30.	Environmental Protection Agency	epa.gov	✗	No overlay
31.	Federal Trade Commission ^[2]	ftc.gov	✓	✓
Total Number of Websites Reviewed [A]			31	31
# of Websites Not Applicable for Analysis [B]			0	19
# of Websites Applicable for Analysis [C] = [A] - [B]			31	12
# of Websites That Are Consistent with Amazon's Practices [D]			17	11
% of Websites That Are Consistent with Amazon's Practices [E] = [D] / [C]			55%	92%

Source: See Appendix D, Appendix F.

312. As an example, the United States Postal Service (USPS), the most visited government website in 2023, uses an overlay, as shown in Exhibit 89, asking consumers to fill out a survey, which comprises eight questions that the consumer is asked to complete. To continue browsing the USPS webpage, the consumer must either complete the survey by filling out and submitting (at least) the seven required questions or click on a “Cancel” button next to the “Submit” button at the bottom of the overlay that the consumer would need to scroll down to.

Exhibit 89 USPS Overlay and Call-to-Action Features

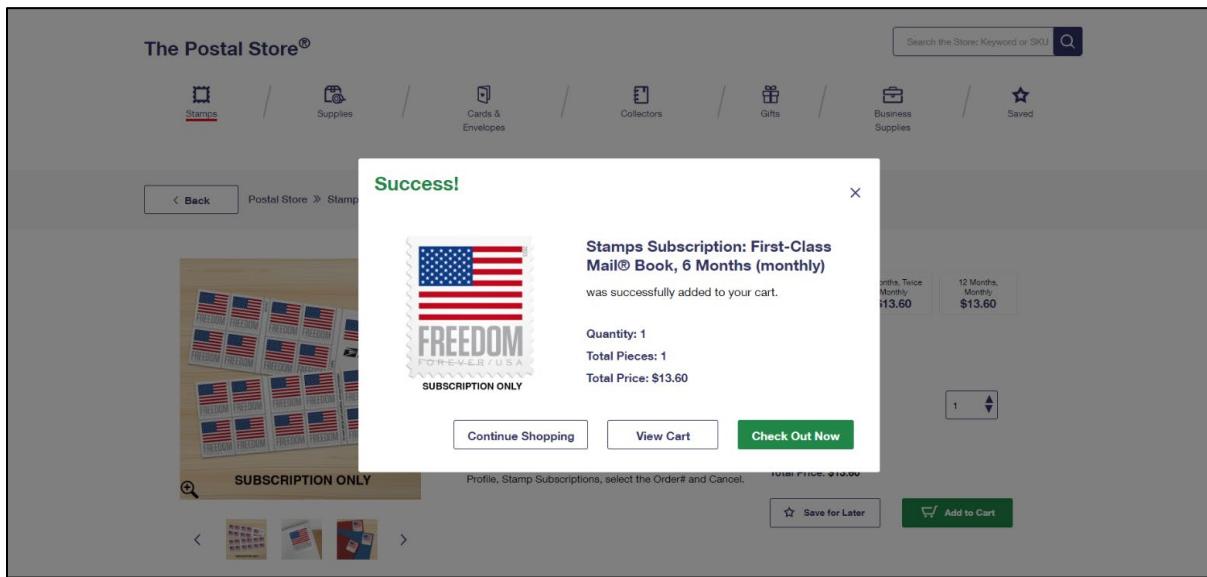


Source: Appendix F, United States Postal Service.

313. Another overlay on the USPS stamp subscription page that requires actions from consumers is shown in Exhibit 90. Specifically, when a consumer adds a product to cart on the website, an overlay is presented asking whether the consumer wants to “Continue Shopping,”

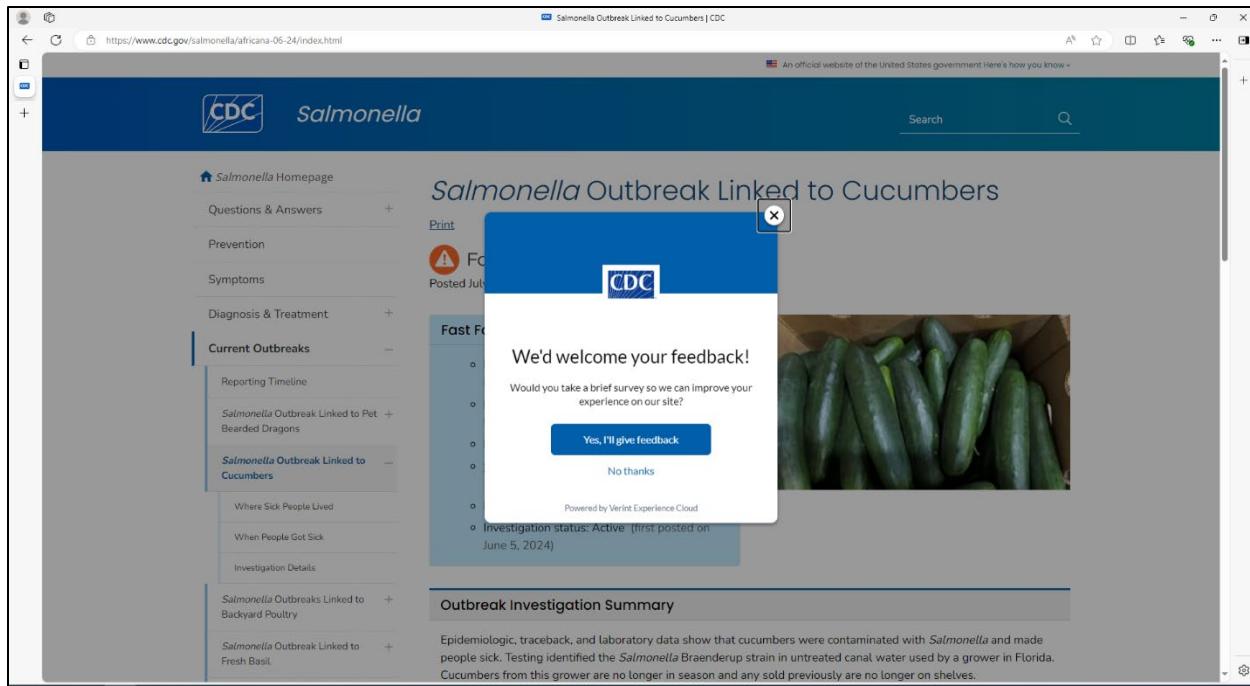
“View Cart,” or “Check Out Now.” Both the “Continue Shopping” and “View Cart” call-to-action features are presented in the form of buttons with navy blue text on white background while the “Check Out Now” button is presented as a button with white text on a green colored background.

Exhibit 90 USPS Stamp Subscription Screenshot



Source: Appendix F, United States Postal Service.

314. The Centers for Disease Control (“CDC”) website also contains an overlay with features for declining and accepting the proposed action on the overlay that differ in color and/or size, as demonstrated in Exhibit 91. On the CDC website, an overlay is presented asking consumers for feedback on their experience browsing the website. On the overlay, the consumer is presented with the option to either give feedback, represented by a blue button containing white text that says “Yes, I’ll give feedback,” or the option to decline providing feedback, represented by a blue plain-text link (no button) that says “No thanks.”

Exhibit 91 Centers for Disease Control Overlay and Call-to-Action Features


Source: Appendix F, Centers for Disease Control.

315. Similar to FTC's claims against Amazon, the FTC's own website contains an overlay that presents call-to-action features for accepting and declining the action proposed on the overlay that differ in color and size. Specifically, when consumers browse the FTC website, such as the page about the "FTC Events," consumers encounter an overlay that solicits feedback to "[h]elp us improve FTC.gov," as shown in Exhibit 92. At the bottom of the overlay, the consumer is presented with the option to give feedback, presented by a navy-blue button containing white text that says "Provide Feedback," or to decline providing feedback presented by a white button with blue text that says "No, thanks."

Exhibit 92 FTC Website Events Page

The screenshot shows the FTC Events page. At the top, the FTC logo and the text "FEDERAL TRADE COMMISSION PROTECTING AMERICA'S CONSUMERS" are visible, along with a navigation bar with links for Enforcement, Policy, Advice and Guidance, News and Events, and About the FTC, and a search icon. The main title "Events" is displayed above a breadcrumb navigation "Home / News and Events". On the left, a sidebar lists categories: News and Events (Events is underlined), News, Legal Proceedings, Open Meetings, Weekly Events, Features, Topics, and Data and Visualizations. A central content area displays a modal window asking for feedback, with buttons for "Provide Feedback" and "No Thanks". Below the modal, a list of events is shown, with the first item being "Seventeenth Annual Microeconomics". The bottom of the page shows a "Displaying 1 - 20 of 1617" message and a "Show: 20" dropdown.

Source: Appendix F, Federal Trade Commission.

Note: The exhibit is cropped from the original screenshot.

316. Similar to the findings from my review of paid digital membership/subscription programs, based on my review of government websites, I found that the UI design elements at-issue were commonly used by these government websites. These results suggest that the use of UI design elements at-issue is common among government websites, and many consumers are likely to be familiar with them, independent of their interactions with Amazon website. As such, many consumers' prior online experiences, including with government websites, would provide additional context for interpreting and understanding the UI design elements at-issue as they go through a shopping experience on the Amazon website.

X. Amazon’s Clarity Improvement Initiatives in 2018-2020 Relating to the UPDP Page Had Certain Methodological Limitations

317. The Amended Complaint describes two sets of clarity improvement initiatives relating to the UPDP page that were undertaken in 2018 (named, “Project Lucent”) and in September 2020. I also understand from counsel that Amazon conducted additional clarity tests in January 2020 on the UPDP page that were similar to those conducted for Project Lucent and the September 2020 UPDP changes. In these clarity improvement initiatives, Amazon attempted to address customer frustrations about Prime’s UPDP page and sign-up clarity, specifically focusing on reducing unintended signups of Prime membership by customers. The Amended Complaint further describes updates made to the UPDP page in September 2020 with the goal of addressing customer frustrations that were rolled back eventually. Based on my review of relevant documents, I understand that despite Amazon’s concerted efforts to modify the UPDP page in hopes of eliminating unintended signup and customer frustrations, results of these 2018 and 2020 clarity tests and subsequent updates in 2020 were mixed and inconsistent with Amazon’s expectations regarding clarity improvements, as measured through proxy metrics defined by Amazon. As discussed further below, I find that these efforts in 2018 and 2020 had methodological limitations that restricted Amazon’s ability to ascertain whether changes made to the UPDP page presented during the checkout process made Prime disclosures clearer to the customer.

A. Amazon Conducted a Series of Clarity Improvement Initiatives to Address Customer Frustrations Between 2018 and 2020

318. Around 2018, Amazon’s Consumer Experience Technology (“CXT”) team began an initiative called the Customer Frustration Elimination Program⁵⁰⁸ to identify and raise awareness about top customer frustrations that were identified through UX Research and observations made of customers in real shopping tasks.⁵⁰⁹ The CXT team identified “Prime Sign-Up Frustration” as

⁵⁰⁸ The “Customer Frustration Elimination Program” is Amazon’s initiative to promote customer obsession and eliminate customer frustrations. *See Email from Jason Brightman to Neil Lindsay et al., “Prime Deep Dive: Customer Frustrations,” May 22, 2018, FTCAMZN_0003135–88 at 36.*

⁵⁰⁹ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 19.

one of the top three themes that Amazon should seek to resolve.⁵¹⁰ According to the CXT team, consumers who expressed frustration with Prime sign-up process “could not always discern how much Prime costs, how long the trial was, and how charges / cancellation worked” or “had difficulty discovering the less prominent ‘No Thank You’ link” on the UPDP page, among others.⁵¹¹

319. In order to address customer frustrations identified by the Customer Frustration Elimination Program, Amazon conducted experiments using A/B testing methodology⁵¹² to investigate the impact of certain content changes to the UI design elements on its UPDP page that corresponded to the specific issues brought up in customer frustrations. Amazon expected that these changes would improve clarity of the UPDP page, and hence the clarity of the Prime

⁵¹⁰ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 19 (“In 2018, the CXT team prioritized 24 frustrations across Amazon it seeks to resolve. The frustrations were identified via UX Research and observations of customer behavior in real shopping tasks. CXT”). The CXT team identified frustrations related to consumers signing up to Prime by mistake or forgetting to cancel the membership when they did not need it. *See, e.g.*, “Clarity in Prime Subscription communications,” February 11, 2021, AMZN_00027881–97 at 87 (“(The sign up button) has to be obvious and not like you’re falling into a trap. But no, the way it is now, it’s so well-placed, it’s gonna get clicked … people will click on it unconsciously.”); “Customer Frustrations Elimination Program: Prime Frustrations,” June 3, 2019, AMZN_00028913–22 at 13 ([a consumer] “experienced repetitive signup prompts during the study, ‘(referencing, a full-page Prime upsell) And I don’t want to get deceived by this...this is the ‘Prime Membership’. I had signed up in the past because it says ‘Free’, but it’s only for 30 days. But then I forgot and paid for the fee.””).

⁵¹¹ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 22 (“Message Clarity: Within an upsell, shoppers could not always discern how much Prime costs, how long the trial was, and how charges / cancellations worked. They did not feel confident signing up for Prime as a result, or signed up without knowing about auto-renew … Message Clarity: Customers did not understand the impact of their choice on Universal Prime Decision Page (UPDP) when they clicked on buttons titled ‘Continue with FREE 1-day shipping’ or ‘Get free two day shipping’ or ‘Proceed to next (Try)’”). The interviews conducted by the CXT team also suggest that consumers have different levels of attention while browsing online and different levels of prior knowledge about Amazon Prime. In fact, interviews show that some consumers do not read or understand the information displayed on the page or are not familiar with Prime membership, while others are familiar with Prime and understand that the upsells would enroll them into the membership. *See, e.g.*, “Clarity in Prime Subscription communications,” February 11, 2021, AMZN_00027881–97 at 87 (“Customers sometimes click on [Calls to Actions] buttons not reading or understanding their labels and/or have trouble discovering the CTA to opt out a subscription. … ‘I didn’t have any idea of what Prime was. I didn’t read this well.’”); “Cheryl, NPA former Prime,” undated, AMZN-PRM-FTC-000347608 at 0:27–3:07 (“[The Prime upsell] always pops up. And I have done this a few times … [by selecting the ‘free two-day shipping’ option] then you are signing up for that, for Amazon Prime, the 30-day trial”); “Customers Confused by Prime Upsells,” undated, AMZN-PRM-FTC-000346782 at 1:37–1:58 (“[In a non-U.S. UPDP page] Amazon always wants you to buy Amazon Prime as well. It’s actually free (as a trial), but… it’s also work to get rid of it again.”).

⁵¹² A/B testing is a methodology used to test the impact of different versions of a webpage, ads, or other marketing program. *See, e.g.*, Keller, K. and V. Swaminathan (2020), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, Harlow, UK: Pearson Education Limited, p. 404; Keller, K. et al. (2010), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, Pearson Education India, p. 404 (“With A/B testing, digital marketers utilize split testing of different versions of a marketing program or activity—for example, two different versions of a Web site, Version A and Version B. Visitors to a Web site can be shown either Web page A or B, and the version with a better conversion rate is selected.”).

sign-up process, and decrease customer frustrations identified by the CXT team.⁵¹³ As discussed below, results of these improvement initiatives did not conclusively suggest clarity improvements, as initially expected by Amazon.

1. 2018 Project Lucent

320. In 2018, Amazon conducted two sets of tests on the UPDP page in the U.S., under the internal name “Project Lucent,” to address customer frustrations with the Amazon Prime signup process.⁵¹⁴ Exhibit 93 summarizes the two sets of tests conducted and lists the UI design elements that were modified in each test.

Exhibit 93 Summary of Tests Undertaken in Project Lucent

Treatment in test 1 (1/31–2/7): Changes to Positive Call-to-action (“CTA”)	
T1	Sign Up Button changed to “Start your 30-day free trial”
Treatments in set of tests 2 (4/13–4/18): Changes to Negative CTA, Headline, and Increased Prominence to Pricing and Renewal Information	
T1	Negative CTA (Link) changed to “No Thanks”
T2	Negative CTA changed to “No Thanks” and changed to a button
T3	Headline updated to include “with Amazon Prime”
T4	Prime price and auto renew information prominence increased
T5	Combination of all changes from Treatments T1, T3, T4
T6	Combination of all changes from Treatments T2, T3, T4

Source: “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79.

Note: Test 1 and tests 2 are sometimes presented as experiment 2 and experiment 1, respectively (i.e., with reversed names) in produced documents. *See, e.g.*, AMZN_00028279–85 at 79.

⁵¹³ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096144–63 at 44–52. *See also* FTC Matter No. 2123050, Amazon’s Fourth CID Response, June 21, 2021, pp. 3–4 (describing content experimentation at Amazon).

⁵¹⁴ “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79; “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 20–28.

321. In the first test, conducted between January 31 to February 7, Amazon tested the impact of changing the accept call-to-action (“CTA”) feature, changing the language of the button from “Get FREE Two-Day Shipping” to “Start your 30-day free trial.”⁵¹⁵

322. In the second set of tests, conducted between April 13 to April 18, Amazon investigated six different treatments (i.e., six different versions of the UPDP page, each of them with changes to one or more UI design elements on the page).⁵¹⁶ Specifically, Amazon tested changes to the CTA to decline the offer (changed from hyperlink to button, Treatment T2) and its text (changed from “No thanks, I do not want fast, free shipping” to “No Thanks”, Treatments T1 and T2), the headline (added text “with Amazon Prime” in the message about free two-day shipping, Treatment T3), the prominence of pricing and renewal information (added text “After your free trial, Prime is just \$12.99/month” above the CTAs, in addition to the information being presented in the terms and conditions at the bottom of the page, Treatment T4), or a combination of these changes (Treatments T5 and T6).⁵¹⁷ For example, as shown in Exhibit 94, for Treatment T6, Amazon 1) changed negative CTA to “No Thanks” button, 2) changed headline to include “with Amazon Prime,” and 3) repeated the Amazon Prime price and autorenewal information above the CTA buttons, in order to test whether these content changes improved the clarity of the UPDP page.

⁵¹⁵ “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79, 85; “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 26.

⁵¹⁶ “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79; “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 26.

⁵¹⁷ “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79; “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 26.

Exhibit 94 Control and Treatment T6 UPDP Page from Project Lucent Set of Tests 2

amazon.com W SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

██████████ why pay for shipping? Save \$6.09 with FREE Two-Day Shipping on this order

Delivery Speed	prime
Same-Day Delivery (in select areas)	FREE
One-Day Shipping (in select areas)	FREE
Two-Day Shipping	FREE

Start a 30-day free trial of Amazon Prime

1

No thanks. I do not want fast, free shipping

Get FREE Two-Day Shipping

Enjoy Prime FREE for 30 days

By signing up, you agree to the [Amazon Prime Terms](#) and authorize us to charge your default payment method or another payment method on file after your 30-day free trial. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month + any taxes, you may cancel any time by visiting [Your Account](#).

amazon.com W SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER

██████████ why pay for shipping? Save \$6.09 on this order. Get FREE Two-Day Shipping with Amazon Prime. 2

Delivery Speed	prime
Same-Day Delivery (in select areas)	FREE
One-Day Shipping (in select areas)	FREE
Two-Day Shipping	FREE

Start a 30-day free trial of Amazon Prime.
After your free trial, Prime is just \$12.99/month 3

1

No Thanks

Get FREE Two-Day Shipping

Enjoy Prime FREE for 30 days

By signing up, you agree to the [Amazon Prime Terms](#) and authorize us to charge your default payment method or another payment method on file after your 30-day free trial. Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month + any taxes, you may cancel any time by visiting [Your Account](#).

Source: "Customer Frustrations Elimination Program: Prime Frustrations," July 15, 2019, AMZN_00028279-85 at 81-84.

Note: The exhibit compares the control version of the UPDP page (top) and the treatment "T6" version (bottom) in the second set of tests of the Project Lucent. Highlighting added for emphasis. The pink boxes highlight the differences between control and treatment versions of the UPDP page.

323. Amazon conducted these tests on its website, by randomly assigning a sample of customers to each treatment condition as part of their real shopping experience on Amazon.⁵¹⁸ Amazon analyzed the impact of these changes using multiple “proxy metrics” for clarity, i.e., metrics of observable consumer behavior that Amazon interpreted as potential indicators of clarity during the signup process. Those metrics, listed in Exhibit 95, included 90-day paid conversion, 90-day shipping benefit usage, signup rate, and 90-day customer service cancels impact, among others.⁵¹⁹ Amazon focused on consumers’ behavior in the 90 days after joining Prime based on the observation that consumers who joined Prime and then canceled within 90 days were significantly less likely to use shipping benefits⁵²⁰ compared to consumers who stayed with Prime beyond 90 days.⁵²¹ Therefore, Amazon assumed that the group of consumers cancelling within 90 days likely represented the majority of mistaken signups.⁵²²

⁵¹⁸ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096144–63 at 44–52. *See also* FTC Matter No. 2123050, Amazon’s Fourth CID Response, June 21, 2021, pp. 3–4 (describing content experimentation at Amazon).

⁵¹⁹ “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79.

⁵²⁰ Amazon Prime includes several types of benefits; shipping benefits are shown multiple times in the UPDP page and are used as one of the metrics for the impact of the UPDP page changes on consumer behavior.

⁵²¹ “Project Lucent: Update,” September 27, 2019, AMZN_00138080–89 at 81 (“The analysis showed that the shipping benefit usage for this segment [i.e., customers who joined Prime and then churned out before 90 days] is significant (*sic*) lower than customers who remained Prime after 90 days (e.g. members using shipping benefit 2+ times for this segment was [REDACTED] for members who remained Prime.”).

⁵²² “Project Lucent: Update,” September 27, 2019, AMZN_00138080–89 at 81 (“We focused the analysis on customers who churned out because this segment will account for the majority of mistaken sign ups.”).

Exhibit 95 List of Metrics for Project Lucent Tests

Metric	Metric Name	Metric Definition
1	Signup Rate	Percentage of customers who signed up for Prime
2	Signup Rate Impact	Percentage impact of Prime signups for the treatment compared to the control
3	90-day Paid Conversion	Paid members at 90 days / signups
4	Estimated Annualized Settled Member	Based on Impact to 90 Day Paid Conversion, the duration of the test, and sample size of the test, an extrapolation of how many paid members would be gained/lost for a full year.
5	90-day Customer Service Cancels (“CSC”) Impact	Percentage of customers who cancelled through Customer Service within 90 days of signing up, compared to control.
6	Estimated Annualized CSC Impact	An extrapolation of how many customers cancelled through Customer Service, compared to control.
7	Paid members lost per CSC	The number of paid members that would be lost when compared to one reduced customer service cancellation.
8	CPLF lost for impacted customers	Incremental contribution profit from a customer who signs up for Prime relative to a customer who did not sign up
9	Change in CSC/Signups	Percentage impact of number of Customer Service cancellations per signup
10	90-day Shipping Benefit Usage	Percentage of members who used shipping benefit at least once in 90 days post-signup

Source: “Customer Frustrations Elimination Program: Prime Frustrations,” July 15, 2019, AMZN_00028279–85 at 79; “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 27; Defendants Amazon.com, Inc., et al.’s Responses and Objections to Plaintiff Federal Trade Commission’s Second Set of Interrogatories, *Federal Trade Commission, v. Amazon.com, Inc., et al.*, United States District Court Western District of Washington at Seattle, Case No. 2:23-cv-0932-JHC (June 3, 2024), pp. 11–12.

324. During Project Lucent, Amazon hypothesized that if a particular UI design element change improved clarity of the UPDP page, and hence the clarity of the Prime sign-up process, that should result in fewer signups overall for free trial of Amazon Prime (because fewer consumers would sign up by mistake, without any impact on the number of intentional sign-ups), but also higher conversion rates to paid Prime membership at the end of the free trial period for those customers who did sign up (because consumers intentionally signing up for the free trial would be more likely to continue to a paid Prime membership and remain Prime members for 90 days or longer).⁵²³ Similarly, Amazon hypothesized that there would be fewer customer service

⁵²³ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096219–38 at 26 (“We expected clearer messaging to lead to fewer Prime sign ups, higher conversion rate to paid Prime (for customers who sign up), lower CS cancels, and limited short-term impact to Prime’s paid member balance (the assumption being that the members we lost would have not converted to paid Prime).”).

calls to cancel Prime memberships.⁵²⁴ That is, if a particular change reduced the number of unintentional signups in Prime, while not negatively impacting those who intended to enroll, due to the information presented on the UPDP page regarding the free trial offer now being clearer to consumers, Amazon expected fewer cancellations within 90 days of the free trial converting to paid membership, and a higher 90-day conversion rate in the treatment group who were exposed to changes compared to the control group who were exposed to the unchanged UPDP page.

325. However, the changes in the 2018 Project Lucent tests did not yield results consistent with Amazon's hypotheses. First, none of the treatments showed a meaningful improvement in the 90-day conversion rate, and instead were slightly lower than the control group.⁵²⁵ Second, none of the treatments showed a meaningful increase in benefit usage compared to the control groups. Instead, 90-day benefit usage rates in the treatment groups were similar to those for the control groups (the difference between the 90-day benefit usage rates for the treatment groups and the control group ranged between [REDACTED]).⁵²⁶ Third, the decrease in customer service cancellations ("CSC") in the 90 days after joining Prime was not as large as the overall decrease in signups. The signup rates for the treatment groups declined between [REDACTED] annualized paid members, in U.S.) to [REDACTED] annualized paid members, in U.S.) compared to the control groups,⁵²⁷ and while customer service cancellation rates improved between [REDACTED] [REDACTED] across treatments, the signup rate decline was not mitigated by paid member conversion improvements (meaning that there were [REDACTED] paid members lost per reduced CS cancel).⁵²⁸

326. Because the results did not support Amazon's expectations of the impact of the treatments, Amazon decided not to immediately implement the tested changes and instead decided to continue studying the data and results.⁵²⁹

⁵²⁴ "Prime Customer Frustrations: Update," September 24, 2018, AMZN_00096219-38 at 19.

⁵²⁵ "Project Lucent: Update," September 27, 2019, AMZN_00138080-89 at 80; "Prime Customer Frustrations: Update," September 24, 2018, AMZN_00096219-38 at 27.

⁵²⁶ "Customer Frustrations Elimination Program: Prime Frustrations," July 15, 2019, AMZN_00028279-85 at 79.

⁵²⁷ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 85.

⁵²⁸ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 85.

⁵²⁹ "Prime Customer Frustrations: Update," September 24, 2018, AMZN_00096219-38 at 19.

2. 2020 Clarity Tests

327. In January 2020, Amazon conducted additional clarity tests on the UPDP page that were similar to those conducted for Project Lucent discussed above and the September 2020 UPDP changes discussed below.⁵³⁰ Amazon investigated six different treatments (i.e., six different versions of the UPDP page, each of them with changes to one or more UI design elements on the page). Exhibit 96 lists the UI design elements that were modified in each treatment. Specifically, Amazon tested changes to the language of the CTA to accept the Prime free trial offer (Treatments T2–T6), the shadow of the CTA (Treatments T3–T6), the CTA to decline the offer (underlined link in Treatment T4, button in Treatments T5–T6), and whether to display the price of shipping by declining Prime (shown in T6). Amazon conducted these tests on its website, by randomly assigning a sample of customers to each treatment condition.⁵³¹ For example, as shown in Exhibit 97, for treatment T6, Amazon 1) changed positive CTA to “Start my Prime FREE trial” button without a shadow, 2) changed negative CTA to “No thanks” button, and 3) added the price of shipping by declining the Prime free trial, in order to test whether these content changes improved the clarity of the UPDP page.

⁵³⁰ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 84–85.

⁵³¹ “Prime Customer Frustrations: Update,” September 24, 2018, AMZN_00096144–63 at 44–52. *See also* FTC Matter No. 2123050, Amazon’s Fourth CID Response, June 21, 2021, pp. 3–4 (describing content experimentation at Amazon).

Exhibit 96 List of Treatments in 2020 Clarity Tests

Treatment	Description
T1	No change – current UPDP experience as of January 2020
T2	Change Positive CTA from “Get Free Prime Delivery” to “Start my Prime FREE trial”
T3	Change Positive CTA from “Get Free Prime Delivery” to “Start my Prime FREE trial” and remove the shadow of the CTA
T4	Change Positive CTA from “Get Free Prime Delivery” to “Start my Prime FREE trial” and remove the shadow of the CTA and make decline link to an underlined “No thanks” link
T5	Change Positive CTA from “Get Free Prime Delivery” to “Start my Prime FREE trial” and remove the shadow of the CTA and make decline link a “No thanks” button
T6	Change Positive CTA from “Get Free Prime Delivery” to “Start my Prime FREE trial” and remove the shadow of the CTA and make decline link a “No thanks” button and add sub-text showing price of shipping by declining Prime

Source: Email from Kevin Broyer to Javier Ramis et al., “RE: [LAUNCH - Acquisition] A Weblab US Desktop UPDP FT - UPDP Clarity CTA,” January 17, 2020, AMZN_00004634-41; “PRIME_252596_T6,” undated, AMZN_00046381.

Note: Treatment T1 represents the Control condition for the 2020 Clarity Tests.

Exhibit 97 Control and Treatment T6 UPDP Page from January 2020 Clarity Tests

amazon.com [SIGN IN](#) [SHIPPING & PAYMENT](#) [GIFT OPTIONS](#) [PLACE ORDER](#) [Show !\[\]\(c06dcff08cf11c6c8f30446b758552d5_img.jpg\) Prime ICE](#)

Test, we're giving you a 30-day FREE Trial of Prime.
No minimum order threshold for FREE Two-Day Delivery

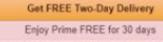
Your Prime benefits include:

Delivery Speed	 prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery (in select cities)	FREE
Two-Day Delivery	FREE

Save \$5.99 on your Prime eligible items with FREE Two-Day Delivery on this order.

1 

No thanks. I do not want fast, FREE delivery

2  Enjoy Prime FREE for 30 days

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your credit card (Visa ****-1111) or another available credit card on file after your 30-day free trial. Your Amazon Prime membership continues until canceled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our Help page to learn more about placing an order.
[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

amazon.com [SIGN IN](#) [SHIPPING & PAYMENT](#) [GIFT OPTIONS](#) [PLACE ORDER](#) [Show !\[\]\(405b358d819b4dae0d98b220b6238c8c_img.jpg\) Prime ICE](#)

Test, we're giving you a 30-day FREE Trial of Prime.
No minimum order threshold for FREE Two-Day Delivery

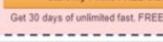
Your Prime benefits include:

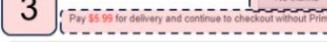
Delivery Speed	 prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery (in select cities)	FREE
Two-Day Delivery	FREE

Save \$5.99 on your Prime eligible items with FREE Two-Day Delivery on this order.

1 

No thanks

2  Get 30 days of unlimited fast, FREE delivery

3 

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your credit card (Visa ****-1111) or another available credit card on file after your 30-day free trial. Your Amazon Prime membership continues until canceled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Having difficulties? Please visit our Help page to learn more about placing an order.
[Conditions of Use](#) | [Privacy Notice](#) © 1996-2020, Amazon.com, Inc.

Source: "PRIME_252596_C," undated, AMZN_00046832; "PRIME_252596_T6," undated, AMZN_00046381.

Note: The control version "T1" of the UPDP page (top) and the treatment "T6" version (bottom) differ in their CTA options and in the text presented on the page. Highlighting added for emphasis. The pink boxes highlight the differences between control and treatment versions of the UPDP page.

328. Amazon analyzed the impact of the changes to the UPDP page using multiple proxy metrics for clarity. These metrics included signup rate, Prime cancellation, customer service contact cancels, benefit usage, and paid member conversion, among others.⁵³² Similar to Project Lucent, these tests resulted in a negative impact to signups that were not offset by corresponding increases in member yield or benefit usage.⁵³³ For example, Amazon expected a UPDP page treatment tested in January 2020 and featuring a presumably clearer positive CTA would reduce upfront signups but would increase benefit usage due to having more aware and engaged members.⁵³⁴ However, the results did not align with Amazon's expectations, as the treatment drove a [REDACTED] decrease in signups or a [REDACTED] decline in paid members, along with a [REDACTED] decline in Prime cancellations and a [REDACTED] decrease in CS contacts.⁵³⁵ Ultimately, Amazon did not launch the changes based on the January 2020 UPDP page tests, but continued to discuss clarity frameworks to assess how to address customer frustrations.⁵³⁶

⁵³² “Prime CE&O Clarity Review and Roadmap,” June 2022, AMZN_00122980–3011 at 2987; “Prime Framework for Clarity,” July 24, 2020, AMZN_00059693–701 at 700.

⁵³³ “Prime Framework for Clarity,” July 24, 2020, AMZN_00059693–701 at 693.

⁵³⁴ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 82 (“We have made attempts to address these specific frustrations through CX changes and product initiatives (see FAQ 1), with the hypothesis that these clarity-enhancing improvements would reduce upfront signups, but we would see increased benefit usage and member yield due to more aware and engaged members.”).

⁵³⁵ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 85 (“From this experiment, a treatment featuring a clearer positive CTA drove a [REDACTED] decrease in signups or a [REDACTED] decline in paid members along with a [REDACTED] decline in Prime cancellations, and a [REDACTED] decrease in CS contacts.”).

⁵³⁶ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 82, 85; “Prime Framework for Clarity,” July 24, 2020, AMZN_00059693–701 at 693 (“We seek feedback on our mental model and approach for introducing clarity enhancements in key locations across the Prime customer experience (CX.”).

3. 2020 Clarity Updates

329. In September 2020, Amazon introduced a set of clarity updates to the UPDP page in the U.S.⁵³⁷ The changes, as shown in Exhibit 98, were 1) updating the decline option from a link to a “No Thanks” button, 2) ensuring the price of Prime was repeated outside the terms and conditions text, and 3) using the terms “Prime” or “Free Trial” in the accept CTA button. Each change was motivated by “customer frustration” tickets, which I understand were collected by the CTX team.⁵³⁸

⁵³⁷ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 82 (“For example, in Sep 2020, we introduced a set of clarity updates to UPDP in the US.”), 92.

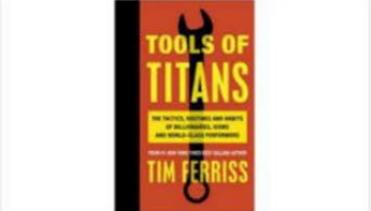
⁵³⁸ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 82 (“For example, in Sep 2020, we introduced a set of clarity updates to UPDP in the US. The changes include updating the decline option from a link to a ‘No Thanks’ button, ensuring the price of Prime was visible outside the T&Cs, and ensuring the accept CTA included ‘Prime’ or ‘Free Trial’. Each change was tied to a longstanding customer frustration ticket (Appendix E.”) emphasis omitted.

Exhibit 98 Control and Treatment UPDP Page from September 2020 Clarity Updates

firstName, we're giving you a 30-day FREE trial of Prime.

No minimum order threshold for FREE One-Day Delivery

Your top Prime eligible item in cart:



Your Prime benefits include:

Delivery Speed	prime
Same-Day Delivery (in select cities)	FREE
One-Day Delivery	FREE
Two-Day Delivery	FREE

Save \$5.99 on your Prime eligible items with FREE One-Day Delivery on this order.

1. No thanks, I do not want FREE delivery

2. After your FREE trial, Prime is just \$12.99/month. You can cancel anytime.

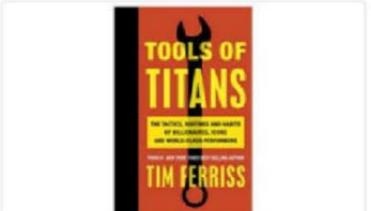
3. Get FREE One-Day Delivery
Enjoy Prime FREE for 30 days

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (or another available payment method on file after your 30-day free trial). Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting [Your Account](#) and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

firstName, we're giving you a 30-day FREE trial of Prime.

After your FREE trial, Prime is just \$12.99/month. You can cancel anytime.

Your top Prime eligible item in cart:



Your Prime benefits include:

Prime Benefits	prime
Prime Video	INCLUDED
Amazon Music Prime	INCLUDED
Fast, FREE delivery on Prime eligible items	INCLUDED

Save \$5.99 on your Prime eligible items with FREE One-Day Delivery on this order.

1. No Thanks

2. Start your Prime FREE trial
Enjoy Prime FREE for 30 days

3. After your FREE trial, Prime is just \$12.99/month. You can cancel anytime.

By signing up, you acknowledge that you have read and agree to the [Amazon Prime Terms and Conditions](#) and authorize us to charge your default payment method (or another available payment method on file after your 30-day free trial). Your Amazon Prime membership continues until cancelled. If you do not wish to continue for \$12.99/month plus any applicable taxes, you may cancel anytime by visiting [Your Account](#) and adjusting your membership settings. For customers in Hawaii, Puerto Rico, and Alaska please visit the [Amazon Prime Shipping Benefits](#) page to check various shipping options.

Source: "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 92.

Note: The control version of the UPDP page (top) and the treatment version (bottom) differ in their CTA options and in the text presented on the page. The pink boxes highlight the differences between control and treatment versions of the UPDP page.

330. Before launching the changes, Amazon conducted a qualitative test with six customers to test its hypothesis that these changes would be perceived by consumers to improve clarity.⁵³⁹ The six consumers were presented different versions of the UPDP page and asked to indicate which version was (i) clearer, (ii) more likely to make the consumer sign up for Prime, or (iii) most confusing.⁵⁴⁰ The responses from these six consumers suggested that the changes to the UPDP page would improve clarity, make consumers more likely to sign up for Prime, and reduce confusion compared to the original version of the UPDP page.⁵⁴¹

331. The changes were rolled back in December 2020, because the implementation of these clarity updates to the UPDP page did not show meaningful clarity improvements, even though the initial qualitative study suggested so.⁵⁴² Results from the launch of the changes on a wider population were inconsistent, and sometimes opposite, to the findings from the test conducted with the small group of six consumers. Specifically, results of the nation-wide launch of the changes showed a [REDACTED] decline in signup rates,⁵⁴³ and directly contradicted the findings from the six-person qualitative test suggesting that the UPDP changes would encourage consumers to sign up.⁵⁴⁴ Furthermore, results contradicted Amazon's expectation that clarity-enhancing improvements would reduce upfront signups but would increase benefit usage due to having

⁵³⁹ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82 ("We conducted user testing with a panel of 6 customers before implementing these changes; all users indicated that they preferred the new CX and found it to be more clear and less confusing than the original."); Email from Monique Mascio to Caroline Moeller, "User Testing Results- UPDP Clarity," September 17, 2020, AMZN-PRM-FTC-000589771 at 71-72 ("Study Goals ... We now want to confirm with adenocelle [sic] evidence that indeed the Clarity BAU is a clearer experience for customers than [sic] the original BAU on desktop. ... Participant Profile ... We recruited 6, non-Prime participants for the unmoderated user tests.").

⁵⁴⁰ Email from Monique Mascio to Caroline Moeller, "User Testing Results- UPDP Clarity," September 17, 2020, AMZN-PRM-FTC-000589771 at 72.

⁵⁴¹ Email from Monique Mascio to Caroline Moeller, "User Testing Results- UPDP Clarity," September 17, 2020, AMZN-PRM-FTC-000589771 at 72-73.

⁵⁴² "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82 ("However, these changes led to a [REDACTED] decline in signup rates, and were estimated to have an annualized global impact of - [REDACTED] paid members. We did not observe a significant change in CS contacts (Free Trial templates saw a [REDACTED] reduction in CS contacts, other templates saw slight increases in contact rates of [REDACTED] or benefit engagement (increased [REDACTED] for hard offer signups from [REDACTED], but declined [REDACTED] for free trial signups). Based on results from our experiments, we believe tightening clarity at a single transaction at signup is not the right approach and that such highly impactful changes to the CX should not be introduced abruptly given the shock to business performance.").

⁵⁴³ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82.

⁵⁴⁴ Email from Monique Mascio to Caroline Moeller, "User Testing Results- UPDP Clarity," September 17, 2020, AMZN-PRM-FTC-000589771 at AMZN-PRM-FTC-000589772 ([REDACTED] of panelists stated that the UPDP page with the proposed changes would "make [them] more likely to sign up for Prime.").

more aware and engaged members.⁵⁴⁵ In fact, opposite to Amazon's expectation, benefit usage declined by about █ for consumers who signed up for the Prime free trial.⁵⁴⁶ Similarly, Amazon did not observe a meaningful improvement in customer service cancellation contacts (only a █ reduction), a result that is inconsistent with the finding from the six-person test that the new UPDP page would be less confusing than the original one.⁵⁴⁷

332. Based on these findings, Amazon rolled back the changes in December 2020 and decided to focus on "increasing clarity-focused communications" while obtaining "more information about members' actions."⁵⁴⁸

B. Amazon's Clarity Improvement Initiatives Related to the Prime Enrollment Flows Had Methodological Limitations, Limiting Amazon's Ability to Interpret Them

333. The UI design element changes that Amazon implemented that were intended to improve clarity, and the proxy metrics Amazon used to measure the impact of the clarity changes, are subject to several limitations. These limitations likely explain the mixed nature of overall results, with many results on key metrics at odds with Amazon's hypotheses.

334. The metrics Amazon used to test the impact of changes to clarity were based on observable consumer behavior such as conversion rates or the number of signups to paid Prime membership. These types of behavioral metrics are easy to collect, and it is common for companies that interact with consumers online to use such observable metrics to assess improvements on objectives such as the level of consumer engagement and various business

⁵⁴⁵ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82 ("We have made attempts to address these specific frustrations through CX changes and product initiatives (see FAQ 1), with the hypothesis that these clarity-enhancing improvements would reduce upfront signups, but we would see increased benefit usage and member yield due to more aware and engaged members.").

⁵⁴⁶ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82. Benefits usage increased slightly (█) only among Amazon customers who accepted a "hard offer," i.e., an offer to start Prime as a paid digital membership without an initial free trial period. See "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82.

⁵⁴⁷ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82.

⁵⁴⁸ "Clarity in Prime Subscription Communications," February 11, 2021, AMZN_00027881-97 at 82-83 ("Based on results from our experiments, we believe tightening clarity at a single transaction at signup is not the right approach and that such highly impactful changes to the CX should not be introduced abruptly given the shock to business performance. Instead, per our mental model, we will drive clarity as a continuum of ongoing initiatives, opting for a lenient approach in the beginning and increasing clarity-focused communications as we get more information about member's [sic] actions. For instance, we will test a confirmation CX for new Prime members (ETA - 2/26, see Appendix D for mocks), and pending those results, will test an automatic reminder email to customers who have not used a benefit on the 27th day of their free trial (DFAD 3/10).") emphasis omitted.

performance metrics. For example, an industry report by McKinsey explains that many businesses analyze the rate at which consumers convert from a free trial to a paid membership and the circumstances under which consumers convert to gain a better understanding of the behavior of their particular customer base.⁵⁴⁹ Additionally, marketing analytics firm Encharge notes that many subscription businesses track and analyze their conversion rates, which enables these companies to “make rational decisions on pricing, product development, and marketing strategies.”⁵⁵⁰

335. Marketing literature on online consumer behavior also uses similar metrics based on observable consumer behavior to analyze company performance and consumer engagement. For example, a recent study on the role of consumer data in marketing describes how companies use consumer behavior data to optimize the effect of marketing actions.⁵⁵¹ Further, in online advertising, metrics for consumer clicks are analyzed to study the impact of ads on purchase.⁵⁵² Similar metrics, such as the number of repeat visits and activity on a website, are also used to measure the performance of social media companies. For example, in my research on performance metrics for social media companies, I analyzed observable user behavior metrics related to usage of the different functionalities of the website (e.g., usage of applications and frequency of user activity).⁵⁵³

⁵⁴⁹ “Sales Disruption Eruption: B2B Sales Go Consumer,” *McKinsey & Company*, October 1, 2013, <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/sales-disruption-eruption-b2b-sales-go-consumer> at p. 3 (“As customers use the trial, the company can run analytics to determine if a customer will convert without additional input, convert with targeted seller attention, or continue as a free user.”).

⁵⁵⁰ “Understand Your SaaS Free Trial Conversion Rates Numbers, Uncover Insights and Money,” *Encharge*, September 9, 2024, <https://encharge.io/saas-free-trial-conversion-rates/> at p. 3.

⁵⁵¹ Blasco-Arcas, L. et al. (2022), “The Role of Consumer Data in Marketing: A Research Agenda,” *Journal of Business Research*, 146, C, 436–452 at p. 437 (“Now, with access to composite behavioral data and a systemic understanding of market conditions, companies can predict and optimize the effects of marketing actions using complex statistical, econometric [...] and artificial intelligence–based approaches.”).

⁵⁵² Chatterjee, P. et al. (2003), “Modeling the Clickstream: Implications for Web-Based Advertising Efforts,” *Marketing Science*, 22, 4, 520–541 at p. 521 (“[R]igorous examination of individual consumer click-through behavior is important for several reasons. First, click-throughs are a behavioral and therefore more accountable measure of online advertising, especially compared to mere exposure. [...] Finally, modeling the clickthrough allows us to address several fundamental issues of both theoretical and practical importance in the nascent area of online advertising response measurement.”); Xu, L. et al. (2014), “Path to Purchase: A Mutually Exciting Point Process Model for Online Advertising and Conversion,” *Management Science*, 60, 6, 1392–1412 at p. 1392 (“The most common measure of conversion effects is conversion rate, which is the percentage of the advertisement clicks that directly lead to purchases among all advertisement clicks of the same type.”).

⁵⁵³ Hoffman, D. L. and M. Fodor (2010), “Can You Measure the ROI of Your Social Media Marketing?,” *MIT Sloan Management Review*, 45 (“In the social media environment, every time a person uses an application designed by or about the company, the company gains increased exposure to its brand, often in highly relevant contexts. For example, several days before Election Day 2008, Starbucks ran a spot on the ‘Saturday Night Live’ show as well as

336. However, collecting only observable metrics of consumer behavior, as Amazon did with its clarity tests, is not methodologically sufficient to accurately determine whether changes to the UPDP page led to better clarity.

337. Amazon's clarity tests (1) did not conduct a systematic preliminary validation of the drivers of potential consumer confusion, and (2) did not measure consumers' cognitive process, given that the metrics used could only assess observable behavior.

338. The first limitation of Amazon's tests is that it conducted the tests under the assumption that the changes to the UPDP page were addressing consumers' causes of confusion. A possible reason for why the tests did not show meaningful clarity improvements in the proxy metrics consistently is that Amazon tests made changes to UI design elements without a systematic assessment of (1) whether these elements represented systematic sources of confusion for consumers, and (2) whether changes made addressed those sources of confusion. A systematic preliminary analysis of the sources of potential confusion would have informed Amazon about the hypotheses to formulate and would have validated the assumptions on which UI design elements represented *systematic* sources of potential confusion for consumers and which changes could address the confusion.

339. Based on the internal documents I reviewed, for most of the tests Amazon did to address customer feedback about the clarity of the UPDP page, Amazon did not conduct a systematic preliminary analysis of whether the changes were addressing sources of frustrations and reducing potential sources of unintentional signups for the majority of the online consumers. In addition, Amazon tests combined multiple changes, without validating how those combined changes could interact, or had no procedure to control for and assess which particular change in the combination could potentially be responsible for clarity improvements.

340. In one instance where preliminary analysis was attempted, the number of participants in the analysis was not large enough to assess whether the changes were addressing the sources of frustrations and reducing potential sources of unintentional signups for the majority of the online

on YouTube, promoting a free coffee giveaway. Twitter mentions of Starbucks skyrocketed, averaging a mention every eight seconds, which translated into a sizeable increase in brand exposure”).

consumers.⁵⁵⁴ In other words, the tests were based on assumptions that the UI design elements that were changed were the main source of the unintentional signups, and that the changes were in the direction of improving the clarity of the Prime enrollment flow.

341. Internally, Amazon acknowledged this shortcoming. For example, one internal document from July 24, 2020 noted the fact that Amazon “cannot rely on internal perspectives alone to develop clarity improvements and must actively solicit and incorporate user feedback in developing and validating experiment hypotheses.”⁵⁵⁵ Another internal document from February 11, 2021 acknowledged the need to undertake a more rigorous approach in assessing a potential clarity change, and noted: “The assessment of ‘what’s clear’ varies by customer, and so must our approach to driving clarity. We will not default to or mandate a generic, global approach to the problem. We will develop signals and solutions that address the needs of the smallest customer cohorts possible and will develop localized guidelines and solutions where relevant.”⁵⁵⁶

342. While the September 2020 UPDP page changes, which were rolled out briefly, did involve user testing, those user tests only involved six individuals, and internal documents acknowledge this as a severe limitation, particularly that the limited sample size “may not capture the diverse user base [Prime] serve[s].”⁵⁵⁷ In fact, marketing literature also indicates that exploratory research conducted on a small number of respondents might provide imprecise results, and additional steps might be required to collect information before making decisions that would have a large business impact.⁵⁵⁸

⁵⁵⁴ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 84 (“We are now leveraging User Testing, a tool that enables rapid customer feedback on CX, to get feedback on new treatments and experiments. However, feedback is limited to < 6 customers at a time and may not capture the diverse user base we serve.”).

⁵⁵⁵ “Prime Framework for Clarity,” July 24, 2020, AMZN_00059693–701 at 693.

⁵⁵⁶ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 82.

⁵⁵⁷ “Clarity in Prime Subscription Communications,” February 11, 2021, AMZN_00027881–97 at 84 (“We are now leveraging User Testing, a tool that enables rapid customer feedback on CX, to get feedback on new treatments and experiments. However, feedback is limited to < 6 customers at a time and may not capture the diverse user base we serve.”).

⁵⁵⁸ Iacobucci, D. and G. A. Churchill, Jr. (2022), *Marketing Research: Methodological Foundations*, 13 ed., Nashville, TN: Earlie Lite Books, Inc. at p. 39 (“Given the flexibility needed in exploratory research, and the flexible nature of qualitative methods, qualitative research methods are often used in the exploratory phase of marketing research. … It is true that in some sense, the results of a focus group can be somewhat tentative. While focus groups are interesting and a customer verbatim compelling, it wouldn’t be smart to proceed to spend vast resources launching a new product or rolling out a new ad campaign on the basis of that somewhat limited, sometimes idiosyncratic information. After all, the results of, say, 3 focus groups (about \$20k each), yield the opinions of about 20 people. … [T]he decisions usually require the additional steps of gathering more info.”).

343. A second and important limitation of the studies is that *none* of the metrics Amazon developed (based on observable consumer behavior) to assess the clarity improvements took into consideration consumers' cognitive state of mind when faced with the UI design elements presumably lacking clarity. Amazon's goal to assess a cognitive measure (i.e., consumers' confusion) through observable metrics of consumer behavior is different from the examples described above, where companies use observable metrics to make strategic marketing decisions such as pricing and product development. That is, Amazon did not employ any mechanism to measure and assess how the behaviors they were observing connected to consumer intent to sign up for Prime and potential confusion due to UI design elements and whether these behaviors could be driven by other or additional factors such as cognitive responses other than potential confusion to UI design element changes.

344. Because the observed behavior that Amazon analyzes reflects the behavior across all consumers in each treatment or control group, the results combine the behavior of multiple consumers, including, for example, behavior of consumers who may be confused by the original UI design elements (and signed up by mistake for the free trial), behavior of consumers who intended to sign up for the free trial with the intention to cancel before the free trial ended, and behavior of consumers who intended to sign up and keep the membership after the end of the free trial. This generates multiple obstacles in reliably isolating the impact of design changes on clarity. For example, even if customer frustration is related to whether the consumer intended to sign up or not, observable consumer behavior alone does not provide information on intention, and it is not possible to distinguish someone who did intend to sign up from someone who did not intend to do so. Similarly, observable behavior alone cannot convey consumer's level of confusion, nor whether any confusion relating to the original UI design elements changed when exposed to different treatments, or whether the treatments might generate other cognitive responses beyond confusion.

345. As an example, a concept called "processing fluency" could explain one potential cognitive response of consumers (or some subset of consumers) to the design changes. Processing fluency refers to a consumer's subjective experience of how easy or difficult it is to complete a mental task and can have significant impact on a consumer's judgement and decision-

making process.⁵⁵⁹ To the extent the treatments reduced the processing fluency (i.e., the ease of processing) of the treatments compared to the controls, consumers might have experienced increased perceived difficulty in navigation, reduced trust, longer decision making times, and lower likelihood of achieving their objectives. Because consumers naturally rely on processing fluency (or ease of processing) as a heuristic for decision-making, if the treatment pages required more cognitive effort to process compared to the control pages, this could have impacted the results in unpredictable ways. Additionally, processing fluency has been shown to influence online trust.⁵⁶⁰ To the extent the treatments reduced processing fluency, they could have inadvertently reduced perceived trustworthiness of the online offer. Note that, as a result of the limitations of the metrics that were collected during the tests, it is not possible to determine the extent to which any changes in observable consumer behavior can be attributed to reduced processing fluency, nor is it possible to identify the extent to which different groups of consumers were differentially impacted by reduced processing fluency.

346. Another example relates to the impact of design changes implemented by Amazon in the treatment groups on the persuasiveness of the free trial offer on the UPDP page for different groups of consumers. As I explained previously, consumers interpret each screen in the Amazon checkout and Prime enrollment flow within (1) the context of the surrounding information on the page, (2) other information the consumer has been exposed to, including in earlier steps in the flow, (3) what, if any, prior knowledge the consumer possesses about the Prime program even before they start the flow, as well as (4) prior knowledge about checkout flows and membership programs offered by websites other than Amazon.⁵⁶¹ Depending on how consumers are influenced by each of these factors, their reaction to the information may differ, including whether or not they become more or less persuaded by the offer. In addition, as I discussed

⁵⁵⁹ Mosteller, J. et al. (2014), “The Fluent Online Shopping Experience,” *Journal of Business Research*, 67, 11, 2486–2493 at p. 2486 (“[T]he perceptual fluency construct … refers to the perceived ease with which one attends to the information presented based on the aesthetic properties of the stimulus. The central premise [of this study] is that consumers’ perceptual fluency of the verbal information presented online is a key factor that shapes their perceived cognitive effort, positive affect, and, ultimately, their choice outcome judgments in the virtual shopping context.”).

⁵⁶⁰ Wang, R. (2024), “Influence of the Fit between Elements in Livestreaming Shopping on Consumers’ Purchase Intention: A Dual-Processing Fluency Perspective,” *Telematics and Informatics Reports*, 13, 100123 at pp. 3–9 (“Processing fluency is the subjective experience of the ease with which individuals process information [], including perceptual and conceptual fluency. … The results show that perceptual fluency is positively related to consumer pleasure, conceptual fluency is positively related to trust, and both pleasure and trust can enhance purchase intention [in the context of livestream shopping].”).

⁵⁶¹ See Section VIII.A.

before, in order to assess what a consumer may experience on a user-interface, it is necessary to take into account online consumers' goals, past experiences, and expectations.⁵⁶²

347. For example, one might consider again three types of consumers who were exposed to the treatments in Amazon's tests: (1) consumers who intended to sign up and keep the membership after the end of the free trial, (2) consumers who intended to sign up for the free trial and intended to cancel before the end of the free trial, and (3) consumers who signed up by mistake for the free trial. Amazon's assumption was that the changes implemented would only impact the consumers in the third group, those who signed up by mistake, and reduce their number. However, to the extent the changes had an unexpected impact on how persuasive the UPDP page offer was for the other two groups of consumers, the number of signups and observable consumer behavior could change in ways that are at odds with Amazon's hypotheses.

348. In sum, the tests had mixed and inconsistent results in terms of impact on observable metrics such as paid conversion rates, usage of Prime benefits, and signup rates across different consumer segments. Based on these findings, Amazon decided not to change the existing enrollment flow. Importantly, the limitations of the Amazon tests do not allow one to measure and compare metrics for cognitive processes of information, nor to identify specific drivers of the changes in the observable metrics. First, Amazon conducted the tests without validating the assumptions of whether the elements that were changed represented *systematic* sources of confusion for consumers. Second, Amazon collected data on and analyzed proxy metrics for clarity, based on observable consumer behavior, but they did not collect metrics about consumers' cognitive state of mind, that would have been relevant to assess the impact of the changes on clarity. Third, Amazon had no way of controlling whether the changes in observable metrics were driven by cognitive responses other than confusion.

⁵⁶² See Section VI.A.

Executed this 24 of February, 2025

A handwritten signature in black ink, appearing to read "Donna L Hoffman".

Donna L. Hoffman

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Education

Ph.D., L.L. Thurstone Psychometric Laboratory, University of North Carolina, Chapel Hill, NC, 1984. (Quantitative Psychology with Formal Minor in Marketing from Graduate School of Business Administration.)

M.A., L.L. Thurstone Psychometric Laboratory, University of North Carolina, Chapel Hill, NC, 1980. (Quantitative Psychology.)

A.B., University of California, Davis, California, 1978. (Psychology.)

Academic Appointments

The George Washington University, July 1, 2013-present

Louis Rosenfeld Distinguished Scholar and Professor of Marketing
Co-Director, Center for the Connected Consumer

University of California, Riverside, 2006-2013

Albert O. Steffey Chair of Marketing (2011-2013); Chancellor's Chair (2006-2011)
Co-Director, UCR Sloan Center for Internet Retailing
Department Chair, Management and Marketing (2006-2011)
Cooperating Faculty, Department of Psychology (2007-2013)

Vanderbilt University

Professor of Marketing, 2000-2006.
Co-Director, Vanderbilt University Sloan Center for Internet Retailing, 2003-2006
Co-Founder & Co-Director, *eLab* Research Laboratory, 1994-2006.
Director, Electronic Commerce Concentration 1999-2006.
Marketing Area Head, 2002-2003, 2005-2006
Associate Professor of Marketing, 1993-2000.
Founder & Director, Electronic Commerce Emphasis at Owen, 1995-1999. (Emphasis converted to formal concentration in 1999).

University of Texas (Dallas)

Associate Professor, 1991-1993.

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Donna L. Hoffman

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Columbia University
Associate Professor, Graduate School of Business, 1987-1990.
Assistant Professor, 1984-1987.
Associate in Business, 1983-1984.

Visiting Scholar Appointments

University of Hong Kong (HKU), January 12-29, 2019
Visiting Scholar, Faculty of Business and Economics, Department of Marketing

University of California, San Diego, Fall 2013, Spring 2018
Visiting Scholar, Rady School of Management

University of Southern California, Fall 2010
Visiting Scholar, Marshall School of Business

Stanford University
Visiting Scholar, Center for Electronic Business and Commerce (Summer 2000)
Visiting Scholar, Department of Marketing (Summer 1997)

UCLA
Visiting Associate Professor, Anderson Graduate School of Management (Summer 1989)

Professional Experience

Interval Research Corporation, Palo Alto, CA, 1995-1999
Visiting Scholar (summer)

Research Triangle Institute, N.C., 1980-1981
Social Science Analyst

Special Appointments

President's Information Technology Advisory Committee (PITAC), Socio-Economic and Workforce Panel, 1998.

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Academic Honors and Awards

2021 Best Article Award, *Journal of Consumer Research*. Awarded for Hoffman and Novak (2018), "Consumer and Object Experience in the Internet of Things: An Assemblage Theory Approach," (Volume 44) April 2018.

2021 GWSB Dean's Awards for Excellence: Senior Faculty Research Award

2020 Finalist for Academy of Marketing Science Best *JAMS Article Award* Published in 2019

2019 Winner of the Lazaridis Prize for the Best Paper on the Practice of Marketing as it relates to Innovation, Technology, and Interactivity, awarded by the American Marketing Association (AMA) TechSIG

2019 *Journal of Consumer Research* Best Reviewer Award

2019 Society for Consumer Psychology Fellow

2012 University of Pennsylvania Future of Advertising Center/Wharton Customer Analytics Initiative "Innovative Approaches to Measuring Advertising Effectiveness" Winner for proposal "Crowdsourcing Ad Effectiveness: Can Emergent Segments Produce the Most Effective Online Ads? (\$7,500)

2012 MSI Ideas Challenge Winner for proposal "Idea Wars: Developing a Collaborative Research Agenda for the Gamification of Marketing" (\$10,000)

2012 Finalist, Paul. D. Converse Award for Outstanding Contributions to the Science of Marketing

2011 National Science Foundation Grant # IIS-1114828, "Motivations, Expectations and Goal Pursuit in Social Media," PI (\$413,756 for two years)

2011 Robert B. Clarke Outstanding Educator of the Year Award (Direct Marketing Educational Foundation)

2011 Marketing Science Institute "Challenges of Communications and Branding in a Digital Era" research proposal competition winner (\$8,750)

2011 Robert D. Buzzell MSI Best Paper Award Honorable Mention for "The 'Right' Consumers for the Best Concepts: Identifying and Using Emergent Consumers in Developing New Products" (Hoffman, Kopalle and Novak)

2009 Thomson Reuters' Essential Science Indicators cited Professors Donna Hoffman and Tom Novak's *Journal of Interactive Marketing* (2009) article as a "Fast Breaking Paper" (one of the most cited in the past two years) in the entire field of Economics and Business, November 2009.

2009 Google/WPP Marketing Research Award (First Round Inaugural Year), "Are Brand Attitudes Contagious?" \$55,000, with Tom Novak

2008 Marketing Science Institute Research Grant Award, The "Right" Consumers for the Best Concepts: A Methodology for Identifying Emergent Consumers for New Product Development, \$6,750, with Tom Novak and Praveen Kopalle.

2008 National Science Foundation, Global Environment for Network Innovations (GENI) End-User Opt-In Initiative

2007 Alfred P. Sloan Foundation Research Networking Workshop Grant Award (\$15,000)

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2007 National Retail Federation Ray M. Greenly Shop.org Scholarship (\$2500) to the UCR Sloan Center for Internet Retailing – awarded to Hector Rosales, UCR undergraduate

2005 Sheth Foundation/Journal of Marketing Award for long-term contributions to marketing for the article “Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations, published in the *Journal of Marketing* (1996).

2005 Stellner Distinguished Scholar for 2005-2006, University of Illinois at Urbana-Champaign.

2004 Member of marketing department ranked #2 in research impact per faculty member (based on median citation rates) among the top 46 business schools in the United States.

2003 ISI Essential Science Indicators cited Professors Donna Hoffman and Tom Novak’s *Marketing Science* (2000) article as “Emerging Research Front” in the entire field of Economics and Business, December 2003.

2003 ISI Essential Science Indicators cited Professors Donna Hoffman and Tom Novak for the highest percentage increase in total citations in the entire field of Economics and Business, July 2003.

2003 AACSB International Effective Practice: eLab

2002 University of North Carolina Distinguished Graduate Alumni
http://gradschool.unc.edu/centennial/distinguished_graduate.html

1999 With Professor Tom Novak, voted as one of the top two Internet scientists by over 600 U.S. and European scientists and marketing managers in a survey conducted by the ProfNet Institute for Internet Marketing in Dortmund, Germany.

1999 EDSF Excellence in Education Award for Innovation in Higher Education (sponsored by Xerox).

1997 EFF (Electronic Frontier Foundation) Honorary Fellow.

1996 TLA/SIRS Freedom of Information Award.

1991 William O'Dell Award for "Correspondence Analysis: The Graphical Representation of Categorical Data in Marketing Research," *Journal of Marketing Research*, 1986.

1991 American Marketing Association Second Annual Advanced Research Techniques Forum Best Paper Award and Best Presentation Award for "Asymmetric Residual Maps for Market Structure Analysis."

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Research Interests

- Consumer experience of AI using assemblage theory and object-oriented ontology perspectives
- Impact of anthropomorphism on AI perceptions and downstream consequences
- Computational approaches (machine learning and NLP methods) for understanding consumer-smart object experience from IoT interaction data
- Self-extension and self-expansion theories of consumers' relationships with AI
- Online consumer behavior and digital marketing strategy

Research Impact

40,782 citations in [Google Scholar](#) (as of October 2024):

- 1 article with 10,000+ citations
- 1 article with 5,000+ citations
- 9 articles with 1,000+ citations
- 16 articles with 500+ citations
- 40 articles with 100+ citations

- h-index=47; i10-index=83

The 1996 *Journal of Marketing* article on marketing in computer-mediated environments is the most widely cited *Journal of Marketing* article from 1995-2007 and the #1 most cited paper in the entire marketing discipline between 1990-2002 (Stremersch, Verniers and Verhoef 2007).

The 2000 *Marketing Science* article on online customer experience is one of the “all time most highly cited articles” and the top article in terms of “all time citations per year” in *Marketing Science* (Shugan 2008), as well as the 14th most cited paper in the entire marketing discipline between 1990-2002 (Stremersch, Verniers and Verhoef 2007).

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Journal Publications

1. Hoffman, D.L. and T.P. Novak, (in press) "The Evolving Consumer IoT: A Novel Framework for Marketing Strategy Based on Assemblage Theory," *Journal of Product Innovation Management*, Thought Leader Special Issue.
2. Valenzuela, Ana, Stefano, Puntoni, Donna L. Hoffman, Noah Costelo, Julian De Freitas, Berkeley Dietvorst, Christian Hildebrand, Young Eun Huh, Robert Meyer, Miriam E. Sweeney, Sanaz Talaifar, Geoff Tomaino, and Klaus Wertenbroch (2024), "How Artificial Intelligence Constrains the Human Experience," *Journal of the Association for Consumer Research*, Special Issue on Automation in Marketing and Consumption, July, 9(3), 241-256.
3. Novak, T.P. and Hoffman, D.L. (2024), "Exploration and Exploitation in Consumer Automation: Visualizing IoT Interactions with Topological Data Analysis," *Journal of the Association for Consumer Research*, Special Issue on Automation in Marketing and Consumption, July, 9(3), 282-294.
4. Novak, T.P. and D.L. Hoffman (2023), "Automation Assemblages in the Internet of Things: Discovering Qualitative Practices at the Boundaries of Quantitative Change," *Journal of Consumer Research*, 49(5), 811-837. Published Online April 7, 2022.
5. Hildebrand, C., F. Efthymiou, B. Francesc, W.H. Hampton, D.L. Hoffman and T.P. Novak (2020), "Voice Analytics in Business Research: Conceptual Foundations, Acoustic Feature Extraction, and Applications," *Journal of Business Research*, 121 (December), 364-374.
6. MacInnis, Deborah J., Vicki G. Mortwitz, Simona Botti, Donna L. Hoffman, Robert V. Kozinets, Donald R. Lehmann, John G. Lynch, Jr., Cornelia Pechmann (2020), "Creating Boundary-Breaking Marketing-Relevant Consumer Research," *Journal of Marketing*, 84(2), 1-23.
7. Novak, T.P. and D.L. Hoffman, (2019), "Relationship Journeys in the Internet of Things: A New Framework for Understanding Interactions Between Consumers and Smart Objects," *Journal of the Academy of Marketing Science*, special issue on Consumer Journeys: Developing Consumer-Based Strategy, 47(2), 216-237.
Finalist for Academy of Marketing Science Best JAMS Article Award published in 2019
8. Hoffman, D.L. and T.P. Novak (2018), "The Path of Emergence Experience in the Consumer IoT: From Early Adoption to Radical Changes in Consumers' Lives," *Marketing Intelligence Review: IoT Experiences*, 10(2), 10-17.

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9. Hoffman, D.L. and T.P. Novak (2018), "Consumer and Object Experience in the Internet of Things: An Assemblage Theory Approach," *Journal of Consumer Research*, 44(6), April, 1178-1204. **Lead article**.

Winner of the 2021 *Journal of Consumer Research* Best Article Award.

Winner of the 2019 Lazaridis Prize for the Best Paper on the Practice of Marketing as it relates to Innovation, Technology and Interactivity, awarded by the American Marketing Association (AMA) TechSIG.

10. Verhoef, P., Stephen, A., Kannan, P.K., Luo, X., Abhishek, V., Andrews, M., Bart, Y., Datta, H., Fong, N., Hoffman, D., Hu, M., Novak, T., Rand, W., and Zhang, Y. (2017), "Consumer Connectivity in a Complex, Technology-Enabled, and Mobile-Oriented World with Smart Products," *Journal of Interactive Marketing*, 40 (November), 1-8.

11. Hoffman, D.L., T.P. Novak and H. Kang, (2017), "Let's Get Closer: How Regulatory Fit Drives Feelings of Connectedness in Social Media," *Journal of the Association for Consumer Research*, issue on "The Consumer in a Connected World," 2(2).

12. White, T., T. P. Novak and D. L. Hoffman (2014), "No Strings Attached: When Giving It Away Versus Making Them Pay Leads to Negative Net Benefit Perceptions in Consumer-Retailer Exchanges," *Journal of Interactive Marketing*, 28 (August), 184-195.

13. Yadav, Manjit S, Kristine De Valck, Thorsten Hennig-Thurau, D.L. Hoffman and Martin Spann (2013), "Social Commerce: A Contingency Framework for Assessing Marketing Potential," *Journal of Interactive Marketing*, 27 (November), 311-323.

14. Hoffman, D.L. and T.P. Novak (2012), "Toward a Deeper Understanding of Social Media," *Journal of Interactive Marketing*. (Editorial, Co-Editor, Special Issue on "Social Media"), 26(May), 69-70.

15. Hoffman, D. L. (2011), "Web 2.0 for B2Bs: Strategic Brief," *European Business Review*, November-December, 72-73.

16. Hoffman, D.L. and Novak. T.P (2011), "Marketing Communication in a Digital Era," *Marketing Management*, Fall, 20(3), 37-42, American Marketing Association. **Cover article**. (Invited article to commemorate the 50th Anniversary of the Marketing Science Institute.)

17. Hoffman, D.L. and M. Fodor (2010), "Can You Measure the ROI of Your Social Media Marketing?" *Sloan Management Review*, 52(1), Fall, 41-49.

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18. Hoffman, D., Kopalle, P., Novak, T. (2010) The “Right” Consumers for Better Concepts: Identifying Consumers High in Emergent Nature to Develop New Product Concepts,” *Journal of Marketing Research*, 47 (October).
Honorable Mention: 2011 Robert D. Buzzell MSI Best Paper Award for significant contribution to marketing practice and thought.
19. Hoffman, D.L. (2009), “Managing Beyond Web 2.0,” *McKinsey Quarterly*, July.
20. Hoffman, D.L., Novak, T.P. (2009), “Flow Online: Lessons Learned and Future Prospects,” *Journal of Interactive Marketing*, 23(1), February, Anniversary Issue, 23-34.
Most cited article during the period 2007-2011.
21. Novak, T.P., Hoffman, D.L. (2009), “The Fit of Thinking Style and Situation: New Measures of Situation-Specific Experiential and Rational Cognition,” *Journal of Consumer Research*, 36(1), December, 56-72.
22. Neslin, S., Novak, T., Baker, K., Hoffman, D. (2009), “An Optimal Contact Model for Maximizing Online Panel Response Rates,” *Management Science*, 55(5), May, 727-737.
23. Hoffman, Donna L., Thomas P. Novak, and Alladi Venkatesh (2004), “Has the Internet Become Indispensable?” *Communications of the ACM*, 47(7), July, 37-42.
24. Hoffman, Donna and Thomas P. Novak (2005), “A Conceptual Framework for Considering Web-Based Business Models and Potential Revenue Streams” *International Journal of Marketing Education*, 1(1).
25. Chatterjee, P., D.L. Hoffman and T.P. Novak (2003), “Modeling the Clickstream: Implications for Web-Based Advertising Efforts,” *Marketing Science*, 22(4), 520-541.
26. Hoffman, Donna L., Thomas P. Novak and Ann Schlosser (2003), “Consumer Attitudes Toward Software Filters and Online Content Ratings: A Policy Analysis,” *Journal of Public Policy and Marketing*, 22(1), 41-57.
27. Novak, Thomas P., Donna L. Hoffman, and Adam Duhachek (2003) “The Influence of Goal-Directed and Experiential Activities on Online Flow Activities,” *Journal of Consumer Psychology*, 13(1&2), 3-16. **Lead article.**
28. Straub, Detmar, Donna L. Hoffman, Bruce Weber and Charles Steinfield (2002), “Toward New Metrics for Net-Enhanced Organizations,” *Information Systems Research*, 13(3), September. (Editorial)

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29. Straub, Detmar, Donna L. Hoffman, Bruce Weber, and Charles Steinfield (2002), "Measuring e-Commerce in Net-Enabled Organizations," *Information Systems Research*, 13 (2), June. (Editorial)
30. Hoffman, D. L. (2000), "The Revolution Will Not Be Televised," Editorial, *Marketing Science*, Winter, 19(1), 1-3. (Editorial)
31. Hoffman, D.L. and T.P. Novak (2000), "How to Acquire Customers on the Web," May/June, *Harvard Business Review*, 179-188.
32. Hoffman, D.L., T.P. Novak and A. Schlosser (2000), "The Evolution of the Digital Divide: How Gaps in Internet Access May Impact Electronic Commerce," *Journal of Computer-Mediated Communication*, 5(3), <http://www.ascusc.org/jcmc/vol5/issue3/hoffman.html>.
Reprinted in: Hoffman, D.L., T.P. Novak and A. Schlosser (2003), "The Evolution of the Digital Divide: How Gaps in Internet Access May Impact Electronic Commerce," *New Directions in Research on E-Commerce*, Charles Steinfield, Editor, 245-292, Purdue University Press.
33. Novak, T.P., D.L. Hoffman, and Y.F. Yung (2000), "Measuring the Customer Experience in Online Environments: A Structural Modeling Approach," *Marketing Science*, Winter, 19(1), 22-44.
34. Hoffman, D.L., T.P. Novak, and M.A. Peralta (1999), "Building Consumer Trust Online," April, *Communications of the ACM*, Volume 42, Number 4, April, 80-85.
35. Hoffman, D.L., T.P. Novak, and M.A. Peralta (1999), "Information Privacy in the Marketspace: Implications for the Commercial Uses of Anonymity on the Web," *The Information Society*, Volume 15, Number 2, April-June, 129-140.
36. Hoffman, D.L. and T.P. Novak (1998), "Division on the Internet?" *Science*, 281 (August 14), 919d (response to letters regarding "Bridging the Racial Divide on the Internet").
37. Hoffman, D.L. and T.P. Novak (1998), "Bridging the Racial Divide on the Internet," *Science*, Volume 280, 390-391, April 17.
38. Novak, T.P. and D.L. Hoffman (1997), "New Metrics for New Media: Toward the Development of Web Measurement Standards," *World Wide Web Journal*, Winter, 2(1), 213-246. Russian translation reprinted as a chapter in *Research on the Internet, Humanitarian and Social Aspects*, A. Voiskounsky, ed.

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39. Hoffman, D.L. and T.P. Novak (1997), "A New Marketing Paradigm for Electronic Commerce," *The Information Society*, Special Issue on Electronic Commerce, 13 (Jan-Mar.), 43-54. German translation reprinted in *THEXIS*, special issue on "Online Marketing," (1997), Jan., 39-43.
40. Hoffman, D.L., W.D. Kalsbeek and T.P. Novak (1996), "Internet and Web Use in the United States: Baselines for Commercial Development," Special Section on "Internet in the Home," *Communications of the ACM*, 39 (December), 36-46.
41. Hoffman, D.L. and T.P. Novak (1996), "Perspectives: The Future of Interactive Marketing," *Harvard Business Review*, 74 (November-December), 161.
42. Hoffman, D.L. and T.P. Novak (1996), "Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations," *Journal of Marketing*, 60 (July), 50-68. Reprinted in: *Marketing Communication Classics*, (2000), Maureen Fitzgerald and David Arnott, eds. London: Business Press, pp. 261-290.

Winner of the 2005 AMA Sheth Foundation/Journal of Marketing Award for long-term contributions to the marketing discipline.

43. Hoffman, D.L., T.P. Novak, and P. Chatterjee. (1995), "Commercial Scenarios for the Web: Opportunities and Challenges," *Journal of Computer-Mediated Communication*, Special Issue on Electronic Commerce, 1(3). **Lead article.**
Reprinted in: *Electronic Commerce: Profiting from Business On-line*, (1996) Layna Fischer, ed., Lighthouse Point FL: Future Strategies Inc., Book Division, pp. 107-136.
Reprinted in: *Readings in Electronic Commerce* (1996), Ravi Kalakota and Andrew Winston, eds., Reading, MA: Addison-Wesley, pp. 29-53. Reprinted in: *Web Marketing Insider* (1996). [www.ideacentral.com/wmi/hoffman1.html]
44. Hoffman, D.L. & Holbrook, M.J. (1993) The Intellectual Structure of Consumer Research: A Bibliometric Study of Author Co-Citations in the First 15 Years of *JCR*. *Journal of Consumer Research*, 19(4), March, 505-517.
45. Hoffman, D.L. & de Leeuw, J. (1992) Interpreting Multiple Correspondence Analysis as an MDS Method. *Marketing Letters*, 3(3).
46. Kopalle, P. & Hoffman, D.L. (1992) Generalizing the Sensitivity Conditions in an Overall Index of Product Quality. *Journal of Consumer Research*, 18 (4), March, 530-535.
47. Hoffman, D.L. & Batra, R. (1991) Viewer Response to Programs: Dimensionality and Concurrent Behavior. *Journal of Advertising Research*, (August-September), 31(4), 46-56.

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48. Novak, T.P & Hoffman, D.L. (1990). Residual scaling: An alternative to correspondence analysis for the graphical representation of residuals from log-linear models. *Multivariate Behavioral Research*, 25(July), 351-370.
49. Hoffman, D.L. & Novak, T.P. (1988). A short SAS macro for performing the basic equations of correspondence analysis. *TRAC, 7(3), Computer Corner*, 93-94.
50. DeSarbo, W. & Hoffman, D.L. (1987). Constructing MDS Joint Spaces from Binary Choice Data: A New Multidimensional Unfolding Model for Marketing Research. *Journal of Marketing Research*, 24 (February), 40-54.
51. Hoffman, D.L. & Franke, G. (1986). Correspondence Analysis: The Graphical Representation of Categorical Data in Marketing Research. *Journal of Marketing Research*, 23 (August), 213-227. Reprinted in *Multidimensional Scaling: Concepts and Applications*, P. Green, F. Carmone and S. Smith (Eds.), Allyn and Bacon, Inc. (1993)

Winner of the 1991 William O'Dell Award for long-run contributions to marketing.

52. DeSarbo, W. & Hoffman, D.L. (1986). Simple and Weighted Multidimensional Unfolding Threshold Models for the Spatial Representation of Binary Choice Data. *Applied Psychological Measurement*, 10(3), 247-264.
53. Hoffman, D.L. (1985). An argument for qualitative ratings. *Television Quarterly*, 21(4), 39-44.

Papers Under Review and in Preparation for Submission

54. Hildebrand, C., D.L. Hoffman, and T.P. Novak, "Your Request is My Command! How Initiation Modalities Shape Conversational AI Experiences," under revision after 1st round review at the *Journal of Consumer Research*.
55. Hoffman, D.L. and T.P. Novak, "Together with Things," in preparation for submission, *Journal of the Academy of Marketing Science*, Special Issue on "Revolutionary Insights in Marketing: Theoretical Generalizations & Practical Relevance."
56. Hoffman, D.L. and T.P. Novak, "Human-Centric versus Object-Oriented Perspectives on Perceptions of AI," target: *Journal of Marketing*.

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Donna L. Hoffman

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57. Novak, T.P. and D.L. Hoffman, "Enabling and Constraining Experiences: Theory, Measurement, and Application," two studies completed, target: *Journal of Consumer Research*.

Working Papers and Monographs

1. Hoffman, D.L. and T.P. Novak (2016), "How to Market the Smart Home: Focus on Emergent Experience, Not Use Cases," January 15. Working paper available at: <https://ssrn.com/abstract=2840976>.
2. Hoffman, D.L. and T.P. Novak, (2015), "Emergent Experience and the Connected Consumer in the Smart Home Assemblage and the Internet of Things," August 20. Monograph. 152 pages. Available at SSRN: <http://ssrn.com/abstract=2648786>
3. Hoffman, D.L. and T.P. Novak (2014), "Online Experience in Social Media: Two Paths to Feeling Close and Connected," working paper available at: <https://ssrn.com/abstract=1990005>.
4. Hoffman, D.L. and T.P. Novak (2012), "Why Do People Use Social Media? Empirical Findings and a New Theoretical Framework for Social Media Goal Pursuit," working paper available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1989586

Edited Books

Hoffman, D.L. And T.P. Novak, Eds. (2005), *Beyond the Basics: Research-Based Rules for Internet Retailing Advantage*. eLab Press, Vanderbilt University.

Refereed Chapters in Books

1. Hoffman, D.L., T.P. Novak, and Y. Li (2015), "Online Consumer Behavior," In Mansell, R. and Ang, P-H (Eds), *The International Encyclopedia of Digital Communication and Society*, Wiley-Blackwell-ICA Encyclopedias of Communication. Malden and Oxford: Wiley.
2. Hoffman, D. L., T.P. Novak and R. Stein (2013), "The Digital Consumer," chapter in The Routledge Companion to Digital Consumption, Eds., Russell Belk and Rosa Llamas, Routledge, Taylor And Francis Group.
3. Hoffman, D.L. and T.P. Novak (2012), "Social Media Strategy," in *Handbook on Marketing Strategy*, eds., Venkatesh Shankar and Gregory S. Carpenter, Edward Elgar Publishing, Ltd., 198-216.

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4. Hoffman, D.L. (2012), "Internet Indispensability, Online Social Capital, and Consumer Well-Being," Chapter to appear in *Transformative Consumer Research for Personal and Collective Well Being* in the section "Technological Fronts," eds., David Glen Mick, Simone Pettigrew, Cornelia Pechmann, and Julie L. Ozanne, New York: Routledge.
5. Hoffman, D.L. and T.P. Novak (2003), 'A Detailed Analysis of the Conceptual, Logical and Methodological Flaws in the Article: "Marketing Pornography on the Information Superhighway," in *Cyberspace Crime*, D.S. Wall, ed., Ashgate Publishing Limited.
6. Hoffman, D.L. and T.P. Novak (2000), "The Growing Digital Divide: Implications for an Open Research Agenda," in "Understanding the Digital Economy: Data, Tools and Research," B. Kahin and E. Brynjolfsson, eds. Cambridge: MIT Press. (editorial review)
7. Novak, T.P. and D.L. Hoffman (2000) "Advertising and Pricing Models for the Web," in *Internet Publishing and Beyond: The Economics of Digital Information and Intellectual Property*, Brian Kahin and Hal Varian, eds. Cambridge: MIT Press. (editorial review)
8. Novak, T.P., D.L. Hoffman, and A. Venkatesh (1998), "Diversity On The Internet: The Relationship Of Race To Access And Usage," In *Investing in Diversity: Advancing Opportunities for Minorities and the Media*, Amy Garmer, Ed. Washington, D.C., The Aspen Institute.
9. Hoffman, D.L. & Steenkamp, J.B. (1994). "Marketing and Quality," chapter 31 (Noel Capon, ed. Marketing Section). In *AMA Management Handbook, Third Edition*, Rod Willis (Ed.) American Marketing Association.
10. Steenkamp, J.B.E.M. & Hoffman, D. (1994). "Price and Advertising as Market Signals for Service Quality." In *Service Quality: New Directions in Theory and Practice*, Roland T. Rust and Richard L. Oliver (Eds.), Sage Publications.
11. Hoffman, D.L., de Leeuw, J. , & Arjunji, R.V. (1994). "Multiple Correspondence Analysis," In *Advanced Methods of Marketing Research*, Richard P. Bagozzi (Ed.), Blackwell.
12. Hoffman, D.L. & Perreault, W.D., Jr. (1987). The Multidimensional Analysis of Consumer Preference and Perception Data. In *Multidimensional Scaling: History, Theory, and Applications*, F.W. Young and R. M. Hamer (Eds.), Lawrence Erlbaum Associates, Inc.
13. Young, F.W., Null, C., Sarle, W., & Hoffman, D.L. (1982). Interactively Ordering the Similarities Among a Large Set of Stimuli. In *Proximity and Preference: Problems in the*

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Hoffman, D.L. (2012), "CB As I See It," feature in *Consumer Behavior: Buying, Having, and Being* by Michael Solomon. Tenth Edition, Prentice Hall.

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Hoffman, D.L. & Novak, T.P. (1997), "Pushing Passive Eyeballs," *Wired*, 5.3, March.

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Hoffman, D.L. & Novak, T.P. (1994), "How Big is the Internet, *HotWired*, Aug. 18.

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Hoffman, D.L. and T.P. Novak (1995), "A Detailed Critique of the *TIME* Article: "On a Screen Near You: Cyberporn (DeWitt, 7/3/95)," July 1.

Hoffman, D.L. and T.P. Novak (1995), 'A Detailed Analysis of the Conceptual, Logical and Methodological Flaws in the Article: "Marketing Pornography on the Information Superhighway," July 2.
Reprinted in International Library of Criminology, Criminal Justice and Penology, General Editors, David Nelken and Gerald Mars. Volume on *Cyberspace Crime*, edited by D.S. Wall (in press). Ashgate Publishing Limited.

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1. Hoffman, D.L. and Novak, T.P (2023), "The Evolving Consumer IoT: A Novel Framework for Marketing Strategy Based on Assemblage Theory," paper presented via Zoom at the Journal of Product Innovation Management Thought Leader Workshop, Babson College, October 6.
2. Hildebrand, C.A., D.L. Hoffman, and T.P Novak (2021), "Detrimental Dehumanization in the IoT: Phonetic & Experiential Consequences of Restricted Human-Machine Interaction," Keynote presentation at the Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Temple University, Fox School of Business (online conference), December 2-3.
3. Hildebrand, C.A, D.L. Hoffman, and T.P. Novak (2021), "Dehumanizing Voice Technology: Phonetic & Experiential Consequences of Restricted Human-Machine Interaction," Paper Presented at the AAAI Artificial Intelligence for Human-Robot Interaction Virtual Symposium (online conference), November 4-6. <https://arxiv.org/abs/2111.01934>
4. Hoffman, D.L. and T.P. Novak (2020), "Object-Oriented Metaphorism as a Mechanism for Understanding AI," paper presented in the Symposium, "Resisting Artificial Intelligence: When Do Decision Makers Avoid or Use Algorithmic Input," Academy of Management Conference, August 10 (online conference).
5. Hoffman, D.L. and T.P. Novak (2020), "Object-Oriented Metaphorism as a Mechanism for Understanding AI," paper presented in the Special Session, "Consumers and Their Smart Devices: Perspectives on Anthropomorphism," Association for Consumer Research Conference, October 1-4 (online conference).
6. Novak, T.P. and D.L. Hoffman (2020), "Quantifying Assemblage Theory to Reify the Possibility Space of Personal Automation Practices," paper presented at the First Virtual ISMS Marketing Science Conference, Session TB10 – Internet of Things, June 11.
7. Hoffman, D.L. and T.P. Novak (2020), "Object-Oriented Metaphorism as a Mechanism for Understanding AI," paper presented at the First Virtual ISMS Marketing Science Conference, Session SC06 – Artificial Intelligence 1, June 13.
8. Hoffman, D.L. and T.P. Novak (2020), "Object Oriented Metaphorism as a Mechanism for Understanding AI," paper presented at the Winter AMA Academic Conference, San Diego, CA, February 13-16.

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9. Novak, T.P. and D.L. Hoffman (2020), "Reifying the Possibility Space of IoT Automation Practices: A Machine Learning Approach," Keynote Address presented at the Affective Content Analysis (AffCon) Workshop, AAAI-20, New York City, February 7.
10. Hoffman, D.L. and T.P. Novak (2019), "Object-Oriented Metaphorism as a Mechanism for Understanding AI," Paper presented at the Psychology of Technology Institute "New Directions in Research on the Psychology of Technology" Conference, UVA Darden Sands Family Grounds, November 8-9.
11. Hildebrand, Christian, D.L. Hoffman, and T.P. Novak (2019), "Dehumanization in the IoT: Experiential Consequences of Human Interaction with Digital Voice Assistants," paper presented in the Special Session, "The Modern Consumer: How New Technologies are Changing Consumer Behavior and Interactions," ACR Fiftieth Anniversary Conference, Atlanta, Georgia, October 17-20.
12. Hoffman, D.L. and T.P. Novak (2019), "Object-Oriented Anthropomorphism as a Mechanism for Understanding AI," paper presented in the Special Session, "Rethinking Anthropomorphism: The Antecedents, Unexpected Consequences, and Potential Remedy for Perceiving Machines as Humanlike," ACR Fiftieth Anniversary Conference, Atlanta, Georgia, October 17-20.
13. Novak, Thomas and D.L. Hoffman (2019), "Reifying the Possibility Space of IoT Automation Practices: A Machine Learning Approach," paper presented in the Special Session, "Extracting Behavioral Insights from Big Data: Novel AI and NLP Approaches," ACR Fiftieth Anniversary Conference, Atlanta, Georgia, October 17-20.
14. Hoffman, D.L. and T.P. Novak (2019), "Object-Oriented Metaphorism as a Mechanism for Understanding AI," paper presented in the Symposium, "Rethinking Anthropomorphism: The Antecedents, Unexpected Consequences, and Potential Remedy for Perceiving Machines as Humanlike," the American Psychological Association Technology, Mind, and Society Conference, Washington, DC, October 3-5.
15. Novak, T.P. and D.L. Hoffman (2019), "Reifying the Possibility Space of IoT Automation Practices: A Machine Learning Approach," paper presented at the 11th Triennial Invitational Choice Symposium, Cambridge, Maryland, May 30 – June 1.
16. Hoffman, D.L. and Novak, T.P. (2019), "Impact of AI on Consumer Experience," paper presented at the 11th Triennial Invitational Choice Symposium, Cambridge, Maryland, May 30 – June 1.

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17. Hoffman, D.L. and Novak, T.P. (2019), "AI: Beyond Friend or Foe," paper presented at the Theory + Practice in Marketing (TPM) Conference, Columbia, May 16-18.
18. Hoffman, D.L. (2019), "Marketing Strategy Panel," Lehmann Fest Research Conference in Honor of Don Lehmann's 50th Anniversary Columbia University, May 10-11.
19. Novak, T.P. and D.L. Hoffman (2019), "Reifying the Possibility Space of IoT Automation Practices: A Machine Learning Approach," paper presented at the GWSB Inaugural Conference on the Intelligence of Things, April 5.
20. Hoffman, D.L. (2019), "Managing Institutional and Cultural Complexity in the Contemporary Digital Marketplace," Discussant, Special Session, Winter AMA, Austin, TX, February 22-24.
21. Hoffman, D.L. (2019), "Opportunities and Challenges in Using Computational Methods to Study the Impact of AI on Consumer Behavior," paper presented in Special Session on Machine Learning for Consumer Behavior Research, Winter AMA, Austin, TX, February 22-24.
22. Hoffman, D.L. (2019), "The Future of Omni-Social Marketing," Invited Panel Session, Winter AMA, Austin, TX, February 22-24.
23. Hoffman, D.L. (2018), "Studying the Effects of New Tech: Methodological Challenges and Solutions," presentation in the Roundtable Special Session, "Trust in the Age of AI," Association for Consumer Research, Dallas, TX, October 11-14.
24. Novak, T.P. and D.L. Hoffman (2018), "A Computational Social Science Framework for Visualizing the Possibility Space of Consumer-Object Assemblages from IoT Interaction Data," paper presented in the Special Session, "The Technological Consumer in an Interconnected World," Association for Consumer Research, Dallas, TX, October 11-14.
25. Hoffman, D.L. and T.P. Novak (2018), "Object-Oriented Anthropomorphism as a Mechanism for Understanding AI," paper presented in the Special Session, Association for Consumer Research, Dallas, TX, October 11-14.
26. Novak, T.P. and D.L. Hoffman (2018), "A Computational Social Science Framework for Visualizing Emergent Consumer Experience from IoT Interaction Data," paper presented at SCECR 2018, Rotterdam, June 18-19.

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27. Novak, T.P. and D.L. Hoffman (2018), "A Computational Social Science Framework for Visualizing Emergent Consumer Experience from IoT Interaction Data," paper presented at Theory + Practice in Marketing, UCLA, May 16-18.
28. Hoffman, D.L. and T.P. Novak (2018), "Mining the Secret Life of Objects: An Object-Oriented Approach to Constructing Representations of Object Experience," accepted for presentation at the 2018 Society for Consumer Psychology Conference, Dallas, TX, February 15-17.
29. Hoffman, D.L. and T.P. Novak (2018), "The Changing Relationship Between Consumers and Objects in the IoT," presentation in the invited special session "Doing Observational Research," presentation at the 2018 Winter American Marketing Association Conference, New Orleans, LA, February 23-25.
30. Hoffman, D.L. and T. P. Novak (2017), "Understanding Object Experience," paper presented at the 2017 Association for Consumer Research Conference, San Diego, CA, October 26-29.
31. Novak, T.P. and D.L. Hoffman (2017), "Send 'Her' My Love: A Circumplex Model for Understanding Relationship Journeys in Consumer-Smart Object Assemblages," paper presented at the 2017 Association for Consumer Research Conference Special Session: Human-Object Relationships: How Consumers Interact with Analog and Digital Things in Analog and Digital Worlds, October 26-29.
32. Hoffman, D.L. and T.P. Novak (2017), "Consumer-Object Relationship Styles in the Internet of Things, paper presented at the Consumer Culture Theory Conference, Anaheim, CA, July 10-12.
33. Hoffman, D.L. (2017), "What Do You Mean She Doesn't Work There Anymore? Challenges and Rewards of Research and Data Collaborations with Industry Sponsors," Paper presented at the AMA Doctoral Consortium, Research Frontiers 2: Managing Collaborations, University of Iowa, June 14-17.
34. Novak, T.P. and D.L. Hoffman (2017), "Visualizing Emergent Identity of Assemblages in the Internet of Things: A Topological Data Analysis Approach, paper presented at EMAC, Groningen, Netherlands, May 23-26.
35. Hoffman, D.L. and T.P. Novak (2017), "Consumer-Object Relationship Journeys in the Internet of Things," paper presented at the Thought Leaders in Consumer-Based Strategy Conference, Amsterdam, May 19-21.

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36. Hoffman, D.L. and T.P. Novak (2017), "How to Market the Consumer IoT: Focus on Experience," MSI Webinar, March 1.
37. Hoffman, D.L. (2017), "Consumer-Object Relationship Journeys," paper presented at the Invited Special Session, Winter AMA, Orlando, FL, February 17.
38. Hoffman, D.L. (2017), "The Impact of Marketer-Consumer Collaborations in the IoT," paper presented in Special Session, Winter AMA, Orlando, FL, February 18.
39. Hoffman, D.L. and T.P. Novak (2016), "When Dumb Objects Become Smart, Do Smart Consumers Become Dumb?," presented at the Invited Perspectives Session, ACR Annual Conference, Berlin, Germany, October 27-30.
40. Hoffman, D.L., T.P. Novak, and H. Kang (2016), "Anthropomorphism from Self-Extension and Self-Expansion: An Assemblage Theory Approach to Interactions Between Consumers and Smart Devices," presented at the ACR Annual Conference, Berlin, Germany, October 27-30.
41. Novak, T.P. and D.L. Hoffman (2016), "Visualizing Emergent Identity of Assemblages in the Internet of Things: A Topological Data Analysis Approach," presented at the ACR Annual Conference, Berlin, Germany, October 27-30.
42. Hoffman, D.L. (2016), "Object Experiences and Object Consumers," presented at the ACR 2016 Doctoral Consortium, Berlin, Germany, October 27.
43. Hoffman, D.L. and T.P. Novak (2016), "How to Market the Consumer IoT: Focus on Experience," presented at the MSI Conference on Marketing in the Consumer Internet of Things, September 30, Washington, DC.
44. Hoffman, D.L. and T.P. Novak (2016), "A Machine Learning and Data-Driven Visualization Framework for Studying Emergent Experience in the Consumer IoT," Paper presented at the Mobile + Social: Marketing Big Data Analytics Workshop 10th Triennial Invitational Choice symposium, Lake Louise, Canada, (University of Alberta) May 14-17.
45. Hoffman, D.L., Novak, T.P. and Kang, H. (2016), "Anthropomorphism from Self-Extension and Self-Expansion Processes: An Assemblage Theory Approach to Interactions between Consumers and Smart Devices," paper presented at the Society for Consumer Psychology Winter Conference, St. Pete Beach, FL, Feb 25-27.

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46. Novak, T.P. and D.L. Hoffman (2015), "Using Topological Data Analysis to Explore Emergent Consumer Experience from Digital Interactions," keynote presentation at the Center for Complexity in Business Annual Conference, Washington, DC, November 12-13.
47. Hoffman, D.L. (2015), "Consumer Experience in the Internet of Things," presented at the MSI Board of Trustees Meeting Finding Growth in Disruption, Phoenix, AZ, November 5-6.
48. Novak, T.P. and D.L. Hoffman (2015), "Using Topological Data Analysis to Explore Emergent Consumer Experience from Digital Interactions," presented at the NYU Conference on Digital Big Data, Smart Life and Mobile Marketing Analytics, New York, NY, October 23.
49. Hoffman, D. L. and T.P. Novak (2015), "Consumer Experience in the Connected World: How Emerging Technologies are Poised to Revolutionize Consumer Behavior Research," presentation in the roundtable (Hoffman and Novak co-chairs), 2015 Association for Consumer Research, New Orleans, October 1-3.
50. Hoffman, D.L. and T.P. Novak (2015), "Consumer Experience in the Internet of Things: Conceptual Foundations," paper presented in the invited plenary session "Future Consumer Worlds: How The Internet Of Things, Avatars, Robots, Cyborgs, And Human Enhancement Technologies May Change The Face Of Consumer Psychology- And Our Concept Of What It Means To Be "Human",," 2015 Society for Consumer Psychology 2nd International Conference, June, Vienna, Austria.
51. Hoffman, D.L., T.P. Novak and H. Kang (2015), "Let's Get Closer: How Regulatory Fit Drives Feelings of Connectedness in Social Media," paper presented in the symposium, "Social Media Experience: Implications for Well-Being, Word-of-Mouth and Brand Consumption," 2015 Society for Consumer Psychology Conference, February, Ritz-Carlton, Phoenix, AZ.
52. Hoffman, D.L. (2014), "Marketing in the Internet of Things," MSI Immersion Conference, Boston, MA, September 18-19.
53. Hoffman, D. L. & T.P. Novak (2014), "The Gamification of Smart Devices: Some Preliminary Thoughts on Concepts and Constructs," Winter AMA Pre-Conference Event on Games, Gaming and Gamification, Orlando, FL, February 21.

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54. Hoffman, D.L., T.P. Novak (2013), "The Social Life of Content: How Negative Motivations Can Lead to Positive Feelings in Social Media," MSI Conference on Social Media and Social Networks: What Are They Good For, Boston, MA, December 3-4.
55. Hoffman, D.L., T.P. Novak (2013), "Two Paths to Feeling Close and Connected in Social Media," Advertising and Consumer Psychology Conference, San Diego, CA, June 13-15.
56. Mintz, O. and D.L. Hoffman (2012), "The Impact of Strategic, Market, and Metric Orientation on Social Media Metric Use and Social Media Marketing Performance," Direct/Interactive Marketing Research Summit, Las Vegas, NV, October 13-14.
57. Novak, T.P. and D.L. Hoffman (2012), "Online Experience in Social Media: Two Paths to Connectedness," Association for Consumer Research, Vancouver, BC, October 4-7.
58. D.L. Hoffman, T.P. Novak and R. Stein (2012), "Predicting Identification with Social Media Groups: Flourishing Independents or Languishing Interdependents," Behavioral Decision Research in Management Conference, Boulder, CO, June 27-29.
59. D.L. Hoffman, T.P. Novak and R. Stein (2012), "Predicting Identification with Social Media Groups: Flourishing Independents or Languishing Interdependents," ISMS Marketing Science Conference, Boston, MA, June 7-9.
60. T.P. Novak and D.L. Hoffman (2012), "Relatedness Need Satisfaction During Social Media Goal Pursuit: The Influence of Online Social Identity and Motivations," Conference of the International Communication Association, Phoenix, AZ, May 24-28.
61. D.L. Hoffman and T.P. Novak (2012), "Need Satisfaction from Interacting with People Versus Content: The Roles of Motivational Orientation and Identification with Social Media Groups," Society for Consumer Psychology Annual Conference, Las Vegas, NV, Feb 16-18.
62. D.L. Hoffman, T.P. Novak, and R. Stein (2012), "The Determinants of Online Social Identity," Society for Consumer Psychology Annual Conference, Las Vegas, NV, Feb 16-18.
63. D.L. Hoffman and T.P. Novak (2012), "Need Satisfaction During Social Media Goal Pursuit: The Role of Motivational Orientation and Identification with Online Social Groups," Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA, January 26-28.

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64. D. L. Hoffman (2011), "MSI 50th Anniversary Special Session in Support of Consumer Behavior Research," Association for Consumer Research North American Conference, St. Louis, MO, October 13-16, 2011.
65. D.L. Hoffman and T.P. Novak (2011), "Beyond Facebook: Emerging Trends for a Post-Social Media World," MSI Conference on Marketing in the Digital Age," October 5, Berkeley.
66. D.L. Hoffman and T.P. Novak (2011), "Why People Use Social Media," INFORMS Marketing Science Conference 2011, Rice University, June 9-11.
67. D. L. Hoffman and T.P. Novak (2010), ", "Retweet: A Digital Meditation on The Power of Twitter," original film, Association for Consumer Research North American Conference, Jacksonville, FL, October 7-10.
68. D.L. Hoffman and T.P. Novak (2010), "Roles and Goals: Consumer Motivations to Use the Social Web," INFORMS Marketing Science Conference 2010, Cologne, Germany, June 16-19.
69. D.L. Hoffman and T.P. Novak (2010), "Are Brand Attitudes Contagious? Consumer Response to Organic Search Trends," INFORMS Marketing Science Conference 2010, Cologne, Germany, June 16-19.
70. D.L. Hoffman, T.P. Novak and J. Silva-Risso (2010), "Validating Brand Tracking Data Against Organic Brand Search Trends," INFORMS Marketing Science Conference 2010, Cologne, Germany, June 16-19.
71. Hoffman, D.L. (2010), "Social Metrics for Social Media," Internet Metrics Session, MSI Pre-Conference Workshop on Marketing Spending, March 1.
72. Hoffman, D.L (2010), "Session One: Allocating Across the Media Mix," panelist, MSI Conference on Effective Marketing Spending, UCLA, March 2-3.
73. D.L. Hoffman and T.P. Novak (2009), "Are Brand Attitudes Contagious? Consumer Response to Organic Search Trends," Google and WPP Marketing Research Awards Conference 09, New York City, November 3.
74. Hoffman, D.L. (2009), "Navigating the Networked Rivers of the Social Web: Emerging Themes for Consumer Behavior Research on Web 2.X," ACR Roundtable, Association for Consumer Research Annual Conference, Pittsburgh, PA, October 22-25.

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75. Hoffman, D.L. (2009), "The "Right" Consumers for the Best Concepts: Identifying and Using Emergent Consumers in Developing Innovations," MSI Customer Insights for Innovation Conference, University of Miami School of Business, Coral Gables, FL, June 18-19.
76. Hoffman, D.L. (2009), "Decomposing Morris: A Curious Correspondence Analysis," "Morrisfest" Symposium, Graduate School of Business, Columbia University, May 8, (Invited)
77. Hoffman, D.L. P. Kopalle, and T.P. Novak (2008), "The "Right" Consumers for the Best Concepts: A Methodology for Identifying Emergent Consumers for New Product Development," ACR North American Conference, Hyatt Regency Hotel, San Francisco, CA, October 23-26. (presenter)
78. Hoffman, D.L. (2008), "Generating Customer Insights from the "Social Web:" Are Marketers Ready to Give Up Control?," Direct Marketers Educational Foundation (DMEF) Direct/Interactive Marketing Research Summit, Las Vegas Hilton, Las Vegas, NV, October 11-12. (Invited)
79. Hoffman, D.L. (2008), "Generating Customer Insights from the 'Social Web': Are You Ready to Give Up Control?," MSI Board of Trustees Meeting and Conference on New Insights on Customer Behavior, Langham Hotel, Boston, MA, April 10-11.
80. Hoffman, D.L., P. Kopalle, and T.P. Novak (2008), "The 'Right' Consumers for Concept Development: Development and Validation of a Scale to Measure Emergent Nature," UC/USC Marketing Colloquium, University of California, Irvine, April 4. (presenter)
81. Hoffman, D.L. (2008), "The Evolution of Customer Experience: 10 Trends You Can't Afford to Miss," (presentation and panel moderator) MSI/Sloan Conference on Leveraging Online Media and Online Marketing, UCR Palm Desert Campus and Hotel Miramonte Resort, February 6-8.
82. Hoffman, D.L. (2008), "User Generated Content," MSI/Sloan Conference on Leveraging Online Media and Online Marketing, UCR Palm Desert Campus and Hotel Miramonte Resort, February 6-8.
83. Hoffman, D.L. (2007), "Cognitive Augmentation: Can the Internet Make You Smarter and More Creative?" Sloan Center for Internet Retailing Networking Workshop, Riverside, CA, May 3-4.

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84. Hoffman, D.L. and Novak, T.P. (2006), "Subject Recruitment and Panel Management: Experience and Observations Based on our Work Creating eLab and eLab 2.0," ACR Roundtable on Doing Better Web-Based Research, ACR North American Conference, Orlando, FL, September 28-October 1. (presenter)
85. Hoffman, D.L. (2006), "Perspectives on Marketing in the Electronic Marketplace: Challenges and New Directions for Research and Instruction," Technology and Innovation SIG Special Session, AMA Summer Marketing Educator's Conference, Sheraton Chicago Hotel and Towers, Chicago, IL, August 4-7, 2006.
86. Hoffman, D.L. (2005), "A Decade of Empirical Research Regarding the Internet," ACR Doctoral Symposium, San Antonio, TX, September 29."
87. Novak, T.P and D.L. Hoffman (2005), "The Impact of Consumer Thinking Style on Performance: Measure of Task-Specific Experiential and Rational Cognition," Marketing Science Conference, Emory University, Atlanta, GA, June 17.
88. White, T., D.L. Hoffman, and T.P Novak (2005), "Forgotten Favors: Biased Account Keeping in Information-Driven Consumer-Seller Relationships," Society for Consumer Psychology Winter Conference, St. Petersburg, Florida, Feb 24-28.
89. Hoffman, D. L., P. Kopalle, and T. P. Novak (2004), "Identifying and Using Emergent Consumers in Developing Radical Innovations," ACR North American Conference, Portland, October 7-10.
90. Hoffman, D.L. "A Brief Overview of eLab Research," Inaugural Partner Conference, Vanderbilt University Sloan Center for Internet Retailing, November 7, 2003.
91. Hoffman, D.L., T.P. Novak and F. Wan (2003), "The Impact of Online Product Review Characteristics on Consumer Preferences," ACR North American Conference, Toronto, October 9-12.
92. Hoffman, D.L., T.P. Novak and F. Wan (2003), "The Impact of Online Product Review Characteristics on Consumer Preferences," UCLA CIBER/CMIE Conference, Managing in the Global Information Economy, Anderson Graduate School of Management, UCLA, September 12-13, 2003.
93. Hoffman, D.L., Novak, T.P. and Kumar, P. (2002), "How Processing Modes Influence Consumers' Cognitive Representations of Product Perceptions Formed from Similarity Judgments," Association for Consumer Research, Atlanta, October 16-20.

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94. Hoffman, D.L. (2001), "Consequences of the Web for Customers and Firms: Developing A Research Agenda for Internet Marketing," Presentation at the CMIE Conference: Research Directions in the Management of the Information Economy, Anderson Graduate School of Management, UCLA, February 9.
95. Hoffman, D.L., Novak, and Schlosser (2001), "Consumer Control in Online Environments," Society for Consumer Psychology Winter Conference, Scottsdale, Arizona, February 15-17.
96. Hoffman, D.L. (2000), "An Integrative Framework for Internet Commerce," Marketing Science Institute Board of Trustees Meeting, "Marketing Knowledge in the Age of E-Commerce," Loews Coronado Bay Resort, San Diego, CA, November 2.
97. Hoffman, D.L. Novak, T.P. and Schlosser, A. (2000), "Consumer Control in Online Environments," Association for Consumer Research, October 19-22.
98. Novak, T.P., Hoffman, D.L., and Yung, Y.F. (1999), "Modeling the Structure of the Flow Experience Among Web Users: A Structural Modeling Approach," Paper presented at the Association for Consumer Research Conference, September 30 – October 3, Columbus, Ohio.
99. Hoffman, D.L. (1999), "The State of the Field: Internet Marketing" panel moderated at the 1999 American Marketing Association Summer Educator's Conference, San Francisco, CA, August 7-10.
100. Hoffman, D.L. and T.P. Novak (1997), "New Metrics for New Media: Toward the Development of Web Measurement Standards," paper presented at the Special Session: Marketing on the Internet, 1997 INFORMS Marketing Science Conference, Berkeley, CA. March 21-24.
101. Hoffman, D.L. and T.P. Novak (1997), "Web Server Log File Analysis: Scanner Data for the New Millennium," paper presented at the Special Session: Web Server Log File Analysis, 1997 INFORMS Marketing Science Conference, Berkeley, CA. March 21-24.
102. Hoffman, D.L. (1996), "Communication Models and Media Measurement in Computer-Mediated Environments: Research Issues and Challenges" INFORMS Spring Conference on Information Systems and Technology, Panel on Web and IS Research, May 7.

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103. Hoffman, D.L. (1996), "Commerce in Cyberspace: What Role for Marketing Scientists?" Panel Discussion presented at the 1996 INFORMS Marketing Science Conference, Gainesville, March 7-10.
104. Chatterjee, P., D.L. Hoffman, and T.P. Novak (1996), "Modeling Consumer Response on the World Wide Web: Implications for Advertising," paper presented at the 1996 INFORMS Marketing Science Conference, The University of Florida, Gainesville, March 7-10.
105. Hoffman, D.L. and Novak, T.P. (1995), "Measuring the Internet," Sixth Conference on Organization Computing, Coordination and Collaboration International Conference on Electronic Commerce, University of Texas at Austin IC2 Institute, October 29-31, 1995.
106. Novak, T.P. and D.L. Hoffman (1995), "Consumer Behavior in Computer-Mediated Environments: Conceptual Foundations," poster presented at the Association for Consumer Research Conference, Minneapolis, MN, October 19-21.
107. Novak, T.P. and D.L. Hoffman (1995), "Marketing in Hypermedia Computer-Mediated Environments: Propositions," paper presented at the INFORMS Spring 1995 National Meeting, Los Angeles, April 24-26.
108. Hoffman, D.L. (1994), "Implications of Commercializing the Internet for Marketing Theory and Practice" The Marketing Information Revolution. AMA Summer Marketing Educators' Conference, San Francisco, August 6-9; and the AMA/Vanderbilt Frontiers in Services Conference, October.
109. Hoffman, D.L. and de Leeuw, J. (1993). Benefit Segmentation and Structuring in Service Business Markets. Paper presented at the TIMS Marketing Science Conference, Washington University, March 11-14.
110. Hoffman, D.L. and Lilien, G. (1992). Assessing the Direction and Magnitude of Perceptual Bias in Relative Influence Judgments. Paper presented at the ORSA/TIMS Joint National Meeting, San Francisco, CA, November 2-4.
111. Hoffman, D.L. (1992). Measuring Customer Perceptions of Service Quality. Invited paper presented at the AMA/Vanderbilt Services Marketing Conference.
112. Hoffman, D.L. and de Leeuw, J. (1992). A Two-Stage Procedure for Analyzing Automobile Switching: The Car Challenge. Invited paper presented at the TIMS Marketing Science Conference, London Business School, July 12-15.

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113. Hoffman, D.L. and de Leeuw, J. (1992). Using Optimal Scaling to Improve Model Estimates from LISREL. Paper presented at the TIMS Marketing Science Conference, London Business School, July 12-15.
114. Hoffman, D.L. and de Leeuw, J. (1991). Linearizing Nonlinear Association with Optimal Scaling: Reducing Bias and Improving Stability in Multivariate Linear Models. Paper presented at the ORSA/TIMS Joint National Meeting, Anaheim, CA, November 3-6.
115. Steenkamp, J.-B. and Hoffman, D.L. (1991). Quantifying Brand Equity Maps. Paper presented at the Annual Conference of the Deutsche Gesellschaft für Operations Research, Stuttgart, Germany, September 4-6.
116. Hoffman, D.L. & Steenkamp, J.-B. (1991). A Judgmental Approach to the Measurement of Brand Equity. Paper presented at ORSA/TIMS Marketing Science Conference, University of Delaware and DuPont Company, March 21-23.
117. Hoffman, D.L. & Lilien, G.L. (1990). Relative Influence in Husband-Wife Decision Making: Threats to Validity in the Key Informant Problem. Paper presented at ORSA/TIMS Marketing Science Conference, University of Illinois, March 22-25.
118. Hanssens, D.M. & Hoffman, D.L. (1989). Strategic Maps for Product Portfolio Management. Paper presented at ORSA/TIMS Joint National Meeting, New York, October 16-18.
119. Hanssens, D.M. & Hoffman, D.L. (1989). Monitoring the effectiveness of marketing strategy for a product line. Paper presented at ORSA/TIMS Marketing Science Conference, Duke University, March 17-19.
120. Hoffman, D.L. (1988). A methodology for analyzing asymmetric structure in transition matrices. Paper presented at ORSA/TIMS Joint National Meeting, Denver, October 23-26.
121. Novak, T.P. & Hoffman, D.L. (1987). Graphically representing nested log-linear models through decomposition of deviance residuals. Paper presented at Psychometric Society Annual Meeting, Montreal, June 17-19.
122. Hoffman, D.L. & Novak, T.P. (1986). Analyzing square data tables with residual scaling. Paper presented at ORSA/TIMS Joint National Meeting, Miami, October 27-29.

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123. Hoffman, D.L. & DeSarbo, W. (1986). Constructing joint space maps from "pick-any/n" data: An illustration of a new stochastic unfolding model. Paper presented at TIMS XXVII International Meeting, Gold Coast City, Australia, July 21-23.
124. Hoffman, D.L. & DeSarbo, W. (1985). An unfolding choice model for binary data. Paper presented at ORSA/TIMS Joint National Meeting, Atlanta, November 4-6.
125. Hoffman, D.L. & Batra, R. (1985). Contingent effects of program environment on advertising effectiveness. Paper presented at Annual Association for Consumer Research Conference, Las Vegas, October 17-20.
126. DeSarbo, W. & Hoffman, D.L. (1985). Simple and weighted unfolding threshold models for the spatial representation of binary choice data. Paper presented at the ORSA/TIMS Marketing Science Conference, Vanderbilt University, March 6-9.
127. Hoffman, D.L. (1984), A Marketing Application of Correspondence Analysis. Paper presented at ORSA/TIMS Marketing Science Conference, University of Chicago, March 12-14.

Invited University Research Seminars

"Object-Oriented Metaphorism as a Mechanism for Understanding AI," Baruch College, Zicklin School of Business, New York City, November 1, 2019; Boston University Zoom Behavior Lab, July 29 (online seminar); Department of Marketing Fall Seminar Series, Schulich School of Business, York University, October 22, 2020 (online seminar).

"Quantifying Assemblage Theory: A Conceptual Empirical, and Data-Driven Approach to Guide Discovery," Wharton School/York University Language Lab, August 20, 2020 (online seminar).

"Reifying the Possibility Space of IoT Automation Practices: A Machine Learning Approach," Keynote, Voya Financial Colloquium: Innovation and Technology in Marketing, University of Connecticut, September 27, 2019; Baruch College, Zicklin School of Business, New York City, November 1, 2019.

"A Computational Consumer Culture Approach to Visualizing the Possibility Space of Automation Assemblages," Ivey Business School, Western University, Canada, November 2, 2018; University of Hong Kong (HKU), January 17, 2019; Boston University Marketing Department Seminar Series, February 12, 2019; Southern California Consumer Culture Community, Annenberg School, University of Southern California, March 8, 2019; John Hopkins University Carey Business School Marketing Department Seminar Series, March 20, 2019.

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“An Assemblage Theory Approach to Consumer Experience and Consumer-Object Relationships,” Marketing Ph.D. Student Workshop, University of Hong Kong (HKU), January 22, 2019.

“Mining the Secret Life of Objects,” University of Hong Kong (HKU), Visiting Scholar Presentation, January 17, 2019.

“A Computational Social Science Framework for Visualizing Emergent Consumer Experience from IoT Interaction Data,” Stanford Graduate School of Business Marketing Department Seminar Series, February 13, 2018; Temple University Data Science Institute Seminar Series, April 10, 2018; University of California Berkeley Haas School of Business Marketing Department Seminar Series, April 23, 2018; UCSD Rady School Marketing Department Brown Bag Seminar Series , May 9, 2018; UCI Marketing Department Seminar Series, June 8, 2018; University of Geneva, School of Economics and Management, June 21, 2018.

“Send ‘Her’ My Love: A Circumplex Model for Understanding Relationship Journeys in Consumer-Smart Object Assemblages,” York University, September 29, 2017.

“Consumer and Object Experience in the IoT: An Assemblage Theory Perspective,” Georgetown University Marketing Department Research Seminar Series, November 4, 2016; UCSD Rady School of Management Marketing Department Research Seminar Series, March 16, 2017; University of Maryland Marketing Department Research Seminar Series, March 29, 2017; Virginia Tech Northern Virginia Center Marketing Department Research Seminar Series, March 31, 2017; University of Illinois marketing Department Research Seminar Series, April 21, 2017.

“Emergence from Interaction in the Consumer Internet of Things: An Assemblage Theory Approach,” Marketing Research Symposium, Lazaridis School of Business and Economics, Wilfrid Laurier University, April 21, 2016.

“Online Experience in Social Media: Two Paths to Connectedness,” Department of Marketing, Goethe-University in Frankfurt/Main, September 14, 2012.

“Beyond Facebook: Friendly Devices” Stanford SIEPR Policy Forum, Social Media and the Connected Economy, Stanford University, November 18, 2011.

“Augment Me: Marketing Strategies for a Post-Social Media World” Baker Speaker Series, Wharton School, University of Pennsylvania, September 29, 2011.

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“Why People Use Social Media: How Online Social Identity and Motivations Influence the Experience of Being Connected,” University of Miami School of Business Department of Marketing Seminar, October 5, 2010; University of Pittsburgh Katz School of Business Department of Marketing Seminar, July 8, 2011; Wharton School, University of Pennsylvania, September 30, 2011.

“Are Brand Attitudes Contagious: Consumer Response to Organic Search Trends,” University of Notre Dame Mendoza College of Business Marketing Department Seminar, December 4, 2009; University of Washington Marketing Foster School of Business Marketing Seminar Series, February 12, 2010; University of Miami School of Business Department of Marketing Seminar, October 5, 2010; University of Southern California Marshall School of Business Marketing Seminar Series, September 17, 2010.

“Consumer Thinking Style, Task Congruence, and Performance: New Measures of Task-Specific Experiential and Rational Cognition,” Distinguished Speaker Series, College of Management, Georgia Institute of Technology, Atlanta, GA, October 20, 2005; Stellner Scholar Distinguished Guest Lecture presented at the College of Business, University of Illinois, Champaign Illinois, November 18, 2005; Invited Seminar, University of California, Riverside, December 8, 2005.

“Identifying and Using Emergent Consumers in Developing Radical Innovations,” Distinguished Speaker Series, College of Management, Georgia Institute of Technology, Atlanta, GA, October 20; Stellner Scholar Distinguished Guest Lecture presented at the College of Business, University of Illinois, Champaign Illinois, November 18; Invited Seminar, University of California, Riverside, December 8; 2005; Sloan Industry Studies Centers’ Annual Conference, Georgia Institute of Technology, April 19-21, 2004; Tuck Marketing Seminar Series, Dartmouth University, March 19, 2004.

“The Impact of Online Product Review Characteristics on Consumer Preferences,” Graduate School of Management, University of California, Irvine, July 8, 2003.

“Research Directions for E-Commerce,” Anderson Graduate School of Management, UCLA, February 2001.

“The Internet is a New Marketing Paradigm” Graduate School of Business, Stanford University, July 12, 2000; Haas School of Business, Berkeley, July 25, 2000 (with T.P. Novak)

“Integrating the Internet into Scholarly Research Paradigms,” Marketing Seminar, Stern School of Business, New York University, March 4-5, 1999 (with T.P. Novak)

“Modeling the Structure of the Flow Experience Among Web Users,” Information Systems/Marketing Seminar, Stern School of Business, New York University, March 4-5, 1999. (with T.P. Novak)

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"Measuring the Flow Experience Among Web Users" Stanford Marketing Camp, July 17-20, 1997. (with T.P. Novak)

"Marketing In Computer-Mediated Environments: Research Issues and Challenges," CRITO, University of California at Irvine, May 3, 1996 (with T.P. Novak)

"Marketing in Hypermedia Computer-Mediated Environments: Implications for Commercialization of the World Wide Web" Interval Research Corporation, October 1994; Stanford University Marketing Seminar, August 3, 1995. (with T.P. Novak)

"Graphical Models of Consumer Perception and Preference" University of North Carolina, November 1992.

"Maximizing Customer Satisfaction Through Market-Driven Quality," University of Texas at Dallas, March 1992; Vanderbilt 1992

"Asymmetric Residual Maps for Market Structure Analysis" Marketing Modeler's Group NY, March 1987; University of Washington, December 1988; Fourth Annual Texas Universities' Marketing Faculty Research Colloquium, Texas A&M University, April 4-5, 1991; Second Annual AMA ART Forum, Beaver Creek, Colorado, June 1991; University of Utah, March 1992; Carnegie Mellon University, April 1992; University of Groningen, May 1992.

"Dyadic Disagreement: An Exploratory Analysis of Household Purchase Influence and Reporting Bias," Pennsylvania State University, November 1990.

"Diagnostic Maps for Product Line Monitoring" UCLA July 1989; Columbia Summer Workshop June 1989; University of Iowa, February 1990; University of Texas at Dallas, February 1990.

"Correspondence Analysis and Related Methods" UCLA (Psychology) April 1987; University of Washington, December 1988.

"Residual scaling and the Analysis of Asymmetric Market Structure" Sixth Annual Columbia/Wharton Joint Seminar, January 30, 1987.

Invited Industry and Government Seminars and Conferences

Hoffman, D.L. (2019), "AI and the Future of Marketing: From Efficiency to Experience," Marketing Edge Board of Trustees Meeting, George Washington University School of Business, October 10.

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Hoffman, D.L. (2019), "AI and the Future of Retailing: From Efficiency to Experience," New Insights on Retail Evolution from Top Universities, ShopTalk 2019, March 3.

Hoffman, D.L. (2018), "The IoT: Opportunities and Challenges," Presentation to the StarTech.com Marketing Roundtable, Ivey Spencer Leadership Centre, Ivey Business School, Western University, Canada, November 1.

Novak, T.P. and D.L. Hoffman (2018), "A Computational Social Science Framework for Representing Emergent Consumer Experience," Presented at Ayasdi, Inc., Menlo Park, CA, May 22.

Novak, T.P. and D.L. Hoffman (2018), "A Computational Framework for Visualizing the Possibility Space of Emergent Consumer Experience," Presented at IFTTT, San Francisco, CA, April 24.

Hoffman, D.L. (2017), "The Impact of the Internet of Things on Consumers and Business," Keynote presentation at the EFMI Vision on Food Congres 2017, Theme: "Food for Thought," Kasteel De Vanenburg, Putten, Netherlands, May 23.

Novak, T.P. and D.L. Hoffman (2016), "Using Topological Data Analysis (TDA) to Visualize Interaction Events from IFTTT Recipes and Smart Home Sensors," Presented at Ayasdi, Inc., Menlo Park, CA March 10.

Hoffman, D.L. and T.P. Novak (2016), "How to Market the Smart Home: Focus on Emergent Experience, Not Uses Cases," Presented at CBS Interactive, San Francisco, CA, March 11.

Hoffman, D.L. (2016), "How to Market the Smart Home: Focus on Emergent Experience, Not Use Cases," Presented at Brite '16, Columbia University, NY, NY, March 7.

Novak, T.P. and D.L. Hoffman (2015), "Exploring Emergent Consumer Experience: A Topological Data Analysis Approach," Presented at IFTTT, San Francisco, CA, November 25.

"The Digital Customer," Discussion, 2012 SAP CEO Event, March 16, 2012.

"Are Brand Attitudes Contagious: Consumer Response to Organic Search Trends," Paper presented at the Google/WPP Marketing Research Awards, November 3, 2009.

"What is Web 2.0?" Business Leaders Roundtable, UCR Palm Desert Graduate Center, March 12, 2009.

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“Emergent Consumers Can Help Develop Successful Future Ideas,” Discussion Paper presented at the NSF GENI Opt-In Workshop, Charles Hotel, July 20-21, 2008 (Presenter. Co-authored with T.P. Novak)

“Examining How the “Social Web” is Creating New Opportunities – And Possible Threats,” eTail 2008, JW Marriott Desert Springs, Palm Desert, CA, February 11-14, 2008.

“The Evolution of Customer Experience: 10 Trends You Can’t Afford to Miss,” Shop.org Annual Summit, Mandalay Bay Resort, Las Vegas, NV, September 17-19, 2007.

“The Evolution of Customer Experience: 10 Trends You Can’t Afford to Miss,” MarketLive E-Commerce Summit, Fairmont Sonoma Mission Inn, Sonoma, CA, June 18-20, 2007.

“How to “Lock in” Your Customers ... and Lure Them Away from Competitors,” Panel Presentation at the 2005 Shop.org Annual Summit, Las Vegas, NV, Sept 12-14, 2005.

“Managing the Customer Chain: From Theory to Practice,” Presentation to the Nashville Technology Council, Tech Roundtable, October 2, 2003.

“Do You Really Understand Your Customers,” Panel Presentation at the 2003 Shop.org Annual Summit, New York City, Sept 24-26, 2003.

“The Consumer Experience: A Research Agenda Going Forward,” FTC Public Workshop 1: Technologies for Protecting Personal Information: The Consumer Experience. Panel: “Understanding How Consumers Interface with Technologies Designed to Protect Consumer Information,” May 14, 2003

“eLab: A Model for Online Consumer Behavior,” Keynote address, American Marketing Association EXPLOR Forum, Chicago, Nov 21-22, 2002.

“Internet Advertising: From CPMs to Results,” United States Securities and Exchange Commission Portals Roundtable: Relationships Between Broker-Dealers and Web Sites, May 23, 2001.

“An Integrated Framework for Internet Commerce,” Presentation at the CMIE Conference Accelerating Change in the Information Economy Anderson Graduate School of Management, UCLA, February 7-8, 2001.

“An Integrated Framework for Internet Commerce,” DaimlerChrysler, Stuttgart, Germany, January 2001.

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"Today's Web Consumer," Presentation to the Round Table Group E-Commerce Bootcamp, Gleacher Center, Chicago, June 26, 2000.

"Internet Commerce in Action," Presentation at the Sterling Commerce Secrets of the E-Business Masters E-Business Strategies Conference, May 8-11, 2000.

"The Internet Revolution and Consumer Privacy: Can They Coexist?" Keynote presented at the Skadden, Arps, 2000 Women's Retreat, Four Seasons Resort, Palm Beach, May 19-21, 2000.

"The Evolution of the Digital Divide: Implications for a Research Agenda," Invited presentation at the Digital Divide Seminar, Markle Foundation, February 14, 2000.

"A Model of Stickiness," Invited paper presented at the *Industry Standard* Internet Summit 99, Ritz-Carlton Laguna Niquel, July 18-20, 1999.

"The Digital Divide: Issues for the Diffusion of Electronic Commerce," Invited paper presented at "The Digital Economy: New Research, Data, and Tools," White House Conference sponsored by NSF, the Department of Commerce and the OECD, May 25-26, 1999 (with T.P. Novak)

"Internet Commerce in Action," Mini-Keynote presentation at the Sterling Commerce Worldwide Conference, *EC Strategies*, Chicago, May 13, 1999.

"Issues of Equity, Privacy, and Commercialism," Invited paper and moderated session presented at The Internet and the Family Conference, Annenberg Public Policy Center National Press Club, Washington, DC, May 4, 1999.

"Linking Internet Marketing with Business Practice: The State of the Field," Invited paper presented at the MSI 1998 Fall Board of Trustees Meeting: From Here to '00: Putting Our Priorities to Work, Phoenix AZ, November 5-6, 1998 (with T.P. Novak)

"Are Women Different?: Gender differences in Web Shopping Behaviors and Their Implications for Internet Business Strategy" Special Seminar, Tools for Building Relationships with the Millennium Woman, iVillage.com and Fast Company. September 24, 1998.

"The Internet Opportunity," Keynote address with Tom Novak at the Future Media Research Programme, London Business School, June 4, 1998.

"Internet Commerce: The Ever Changing Landscape," Sterling Commerce Executive Symposium in partnership with FORTUNE Conference Division "Building the Next Generation Enterprise: Reshaping Your Business with Electronic Commerce" Royal York Hotel, Toronto, Canada, May 12-14, 1998.

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“The State of the Industry,” Opening Keynote at the 1998 CMA Music Industry & New Technologies (MINT) Conference May 13, 1998.

“Integrating the Internet into Your Electronic Commerce Strategies,” AHMA, Marcos Island, Florida, January 25-27, 1998.

“Information Privacy in the Marketspace: Implications for the Commercial Uses of Anonymity on the Web,” American Association for the Advancement of Science conference, “Anonymous Communications on the Internet: Uses and Abuses,” November 21-23, University of California, Irvine, 1997.

“Measuring the Audience: Where Top Researchers Agree and Diverge” Online News Summit, New York Hilton Hotel, New York City, September 11-12, 1997.

“Privacy and Electronic Commerce,” EFF/Silicon Valley Industry Briefing with Ira Magaziner on “Global Electronic Commerce and Personal Privacy Protection.” August 5, 1997.

“Segmenting the Online Consumer Market: Preliminary Findings,” Interval Research Corporation, Palo Alto, CA, July 31, 1997

“Measuring the Flow Experience Among Web Users” Stanford Marketing Camp, July 17-20; Interval Research Corporation, Palo Alto, CA, July 31, 1997

“Integrating the Internet into Your Electronic Commerce Strategy” Sterling Commerce Executive Symposium, Hotel Inter-Continental, Miami May 12-13, 1997.

“New Metrics for New Media: Toward the Development of Web Measurement Standards” Keynote Address, IQPC Performance Measurements for Web Sites, Hotel Nikko, San Francisco, February 24-26, 1997.

“Advertising Pricing Models for New Media,” Internet Publishing and Beyond: The Economics of Digital Information and Intellectual Property, Kennedy School of Government, Harvard University, Jan 23 - Jan 25, 1997.

“Getting a Grip on Your Technology Strategy” *Fortune* 500 CEO Forum, November 14-16, 1996.

“Commerce on the Internet: Emerging Models” Future of Interactive Marketing Conference, Harvard Business School, May 22-24, 1996; Intel Corporation, Santa Clara, CA, August 12, 1996; Interdisciplinary Aspects of the Electronic Superhighway Seminar, George Washington University, School of Engineering and Applied Science, October 15, 1996.

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"Envisioning the Future of Internet Marketing: Understanding the Consumer and Market Response," MIT Sloan School, September 18-19, 1996.

"Internet Research Methodology Workshop" Microsoft Corporation, September 5, 1996.

"Workshop on Flow Measurement Methodology" Interval Research Corporation, August 1, 1996

"Going with the Flow: Tapping Consumer Experience on the Net" Spotlight Executive Conference Directing the Future of Interactive Media, July 28-30, 1996.

"New Metrics for New Media" Netscape Communications Corporation, July 18, 1996.

"Who Is On the Net?: Implications for Commercial Development," Interval Friday Forum, Interval Research Corporation, Dec. 15 1995; Netscape Communications Corporation, April 18 1996; Stanford Breakfast Briefing Series, July 11, 1996; University of Santa Clara, July 15, 1996.

"Consumer Data and Demographics" Wharton Forum on Electronic Commerce, May 9-10, 1996.

"Leveling the Playing Field: Mass Communication vs. Mass Media," presentation at the Sixth Conference on Computers, Freedom, & Privacy, March 27-30, 1996.

"Commercial Scenarios for the Web: Opportunities and Challenges" Interval Internet Symposium, Interval Research Corporation, February 23 1995; Harvard Business School Colloquium, Multimedia and the Boundaryless World, November 15-17, 1995.

"What Is the Internet and How Can It Help Your Business?" CABLE, Loews Vanderbilt Plaza, October 11, 1995.

"Understanding the Internet Audience" Keynote Address, Net Profits: Doing Business on the Internet, Sheraton Palace, San Francisco, August 1-2, 1995. *[ranked in top 3 of speakers, with Ted Leonsis, President, AOL and Scott Cook, Chairman, Intuit]*

"Business Models that Work on the Net," Net Profits: Doing Business on the Internet, August 1-2, 1995; InterAct '96.

"Measurement Implications of the Internet," Bellcore Measurements Research Symposium, May 18, 1995.

"Correspondence Analysis and Related Methods" 192nd American Chemical Society Meetings, September 1986; First Annual AMA ART Forum, Incline Village, Nevada, June 1992.

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"Program Impact: The Key Measure of Audience Response" Beyond Ratings Conference, Columbia University, October 19, 1984.

George Washington University Research Seminars and Events

GWWIB (Women in Business) Panel on Marketing and Advertising, Moderator, April 1, 2023.

"How the Internet of Things is Going to Change Everything," George Talks Business, February 25, 2019. <https://business.gwu.edu/george-talks-business>

"How to Market the Consumer IoT: Focus on Experience," GWSB Board of Advisors Presentation, September 23, 2016.

"The Center for the Connected Consumer," GWSB Faculty Meeting Presentation, January 23, 2015.

"Consumer Experience in the Smart Home: An Assemblage Theory Perspective," GWSB Marketing Department Brownbag, February 20, 2015.

"The Social Life of Content: How Introjected Motivation Leads to Feeling Close and Connected in Social Media," GWSB Research Brownbag, Dec 12, 2013.

UC Riverside Research Seminars and Events

"Sloan Center Overview," Sunstar Delegation Visit to AGSM, Alumni Center, April 16, 2008.

"The Evolution of Customer Experience: 10 Trends You Can't Afford to Miss," Back to Class, UC Riverside Homecoming 08, February 23, 2008.

"The Search for Significance: Emergent Nature and Concept Development," MAMA, November 13, 2007.

"How to "Lock in" Your Customers and Lure Them Away From Competitors," CUC Alumni Breakfast, February 28, 2007.

"The Sloan Center for Internet Retailing and eLab 2.0," AMA Student Club Meeting, UC Riverside, November 1, 2006.

"eLab 2.0 Online Research," MAMA, Department of Psychology, October 30, 2006.

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Vanderbilt University Events

"Can We Live Without the Internet? Pondering the Implications of Internet Indispensability," VU Commencement Faculty Seminar, May 12, 2005.

"Privacy on the Internet: Key Ethical Issues and Challenges," Cal Turner Program for Moral Leadership in the Professions, Student Discussion Series: Professions and Privacy, Feb 18, 2005.
"E-Commerce at the Owen School," Faculty Presentation at Diversity Weekend, December 1, 2001.

Owen Strategic Planning On-Site Retreat, Owen Corporate Council, November 8, 2001.

"Electronic Commerce at Owen and the Vanderbilt eLab Initiative," Invited presentation to the IBM Industry Solutions Lab, May 24, 2000.

"Electronic Commerce at the Owen School," Presentation to the Owen Graduate School of Management, Alumni Association Board of Directors, April 28, 2000.

"Owen's Electronic Commerce Advantage," Invited paper presented at the First Annual Scholar's Weekend, Owen Graduate School of Management, Vanderbilt University, March 25-28, 1999.

"Who's Making Money on the Internet? (Hint: It's Not Who You Think!)," Owen 7:29 Breakfast Group, Ingram Industries, March 25, 1998.

"The Revolution Will Not Be Televised" Vanderbilt Alumni Reception, Capital City Club, February 1995; Nashville Forum, Stadium Club, September 7, 1995.

TEACHING

Post-Doctoral Supervision

Hyunjin Kang (Communications, Pennsylvania State University, Ph.D. 2013)
First placement: Assistant Professor of Communication, Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore

Randy Stein (Psychology, Yale University, Ph.D. 2011).
First placement: Assistant Professor of Marketing, Cal Poly Pomona.

Terry Daugherty (Communications, Michigan State University, Ph.D. 2001).
First placement: Assistant Professor of Advertising, University of Texas at Austin.

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Fang Wan (Communications, University of Minnesota, Ph.D. 2002).
First placement: Assistant Professor of Marketing, University of Manitoba.

Doctoral Dissertation Committees

Nadia Daniente (Marketing, Gies College of Business, University of Illinois, Ph.D. 2021).
Member. Dissertation topic : "Me, Myself, and AI: The Impact of Artificial Intelligence on Marketing and the Self."

Abishek Borah (Marketing, Marshall School of Business, USC, Ph.D. 2013. First placement : University of Washington, Seattle). Member. Dissertation topic : "Essays in Consumer Conversations in Social Media."

Jean-François Guertin (Marketing, HEC Montreal, Ph.D. 2011. First placement : University of Sherbrooke). Member. Dissertation topic : "Three Essays on the Development, Validation and Confirmation of the Flow Construct to Investigate Navigational Web Site Experience"

Ofer Mintz (Marketing, UC Irvine, Ph.D. 2012. First placement: LSU). Member. Dissertation topic: "What Drives Managerial Use of Marketing vs. Financial Metrics and Does it Impact Performance?"

Patrali Chatterjee (Marketing, Vanderbilt University, Ph.D.1998. First placement: Assistant Professor, Rutgers University). Co-Chair. Dissertation topic: "Modeling Consumer Response in World Wide Web Sites - Implications for Advertising."

Anand Narasimhan (Organizational Theory, Vanderbilt University.1997. First placement: Assistant Professor, London School of Business) Co-Chair. Dissertation topic: "Interpretive Stance in Inchoate Industries"

Scott Eggebeen, Ph.D. Measurement, Evaluation and Statistics 1988 (Columbia).

Richard Columbo, Ph.D. Marketing 1987 (Columbia).

Doctoral Qualifying Committees

Brynn Nodarse, UCR Psychology 2007 orals
Abishek Borah, USC Marshall School of Business, 2011 orals

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Doctoral Consortia

Co-Chair, ACR Doctoral Symposium, 2018
Faculty, AMA Doctoral Consortium, 2017
Faculty, SCP Doctoral Consortium, 2015
Faculty, ACR Doctoral Consortium, 2010
Resident Faculty, AMA Doctoral Consortium, New York University, July 29 - August 2, 1987

Courses

Undergraduate: AI and Marketing Strategy; Marketing Strategy: Based on First Principles and Data Analytics; Integrated Marketing Communication

MBA Program: AI and Marketing Strategy; Marketing Strategy: Based on First Principles and Data Analytics; Integrated Marketing Communication; Marketing Strategy and Planning; Digital Commerce Strategy; Strategic Brand Management; New Product Development; Product Management; Internet Marketing Strategy; Managing the Internet Retailing Customer Chain

EMBA Program: Marketing Management (Core); Marketing Planning (Marketing II)

Doctoral Seminars: Marketing in Computer-Mediated Environments; Online Consumer Behavior; Nonlinear Multivariate Analysis of Marketing Data

Executive Teaching

Stanford University Professional Education Executive Programs
Market Strategy for Technology-Based Companies
Faculty, Marketing on the Web I & II, 1996: April 17-19; October 23-25; 1997: April 23-25; October 29-31; 1998: March 18-20.

Columbia Business School Executive Programs, Arden House
Case Discussion Leader, Marketing Management Program 1985-1989
Faculty, Marketing Research Program 1985
Assistant Director, Marketing Management Program 1984-1986

Columbia Business School Executive Programs, Special Programs Division
Faculty, Marketing Management Program, Equitable, Inc., Morristown & Tarrytown, 1988-1989
Faculty, Marketing Management Program, Homequity, Inc., Connecticut, 1985

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SERVICE

Editorial Activities

Editor

Journal of Marketing, Special Issue Co-Editor, "New Technologies and Marketing," 2019-2021
Marketing Intelligence Review: IoT Experiences, Co-Editor, 2018
Journal of Interactive Marketing, Special Issue Editor, "Social Media," 2011
Information Systems Research (Marketing area), Special Issue Editor, 2000-2001
Marketing Science, Special Issue Editor, "Marketing Science and the Internet," 1999-2000

Departmental Editor

Electronic Commerce Research (Marketing Department)

Associate Editor

Journal of Consumer Psychology, 2024-present
Journal of Marketing, summer 2018-present
Journal of Consumer Research, 2020-2022
Journal of Marketing Research, Guest AE on multiple manuscripts

Editorial Boards

Journal of Marketing -through 2018
Journal of Consumer Research, - Dec 2020, 2022-present
Journal of Marketing Research (2012-)
Journal of Consumer Psychology, (-present)
Journal of Interactive Marketing, Editorial Board founding member 1996-present
International Journal of Electronic Commerce, 1995-present
Social Science Research Network, 2002-present (Advisory Board)
International Journal of Marketing Education, 2002-present

Advisory Panels

Society for Consumer Psychology, 2012-2015

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Past Memberships

Journal of Electronic Commerce (Founding Member), Marketing Letters (member of Academic Advisory Board and former member of Editorial Board), Marketing Science (off in 2002), EC World (Founding Member), Managerial Marketing Abstracts, Marketing Research Network

Ad Hoc Reviewing

Journal of Consumer Research, Academy of Management Review, Management Science, Marketing Science, Communications of the ACM, Journal of Computer-Mediated Communication, Journal of Marketing, Journal of Marketing Research, Psychometrika, International Journal of Research in Marketing, Applied Psychological Measurement

Conference Reviewing

2022, Society for Consumer Psychology
2021, ACR Annual Conference
2020 ACR Annual Conference, Associate Editor
2015 Society for Consumer Psychology International Conference
2009 ACR Asia-Pacific Conference (reviewed in 2008)
Society for Consumer Psychology 2008, 2009, 2010, 2011
ACR Annual Conference 1991, 1992, 1999, 2000, 2002, 2003, 2004, 2005, 2008, 2010
AMA Summer Educator's Conference, 1989, 1990, 1991, 1992
AMA Winter Educator's Conference, 1991, 1992, 1993, 1994, 1995

Other Significant Reviewing

Grants
National Science Foundation (various programs)

Research Competitions

John A. Howard American Marketing Association Dissertation Competition, Blue Ribbon Panel, 2015
John A. Howard American Marketing Association Dissertation Competition, numerous years-present
Marketing Science Institute Alden Clayton Doctoral Dissertation Competition, numerous years, 2006-present
MSI - Journal of Marketing Research competition on "Practitioner-Academic Collaborative Research

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SCP Doctoral Dissertation Competition, numerous years, 2006, 2007, 2008

Research Reports

National Research Council Computer Science and Telecommunications Board
ETS Scholastic Achievement Test, Irwin

Conference Organization

Conference Chair

GWSB Inaugural Conference on the Intelligence of Things: Year 1: Research Opportunities and Challenges, April 5, 2019 (Co-Chair)

Association for Consumer Research Doctoral Symposium, Dallas, TX. October 11, 2018 (Co-Chair)

MSI Conference on Marketing in the Consumer Internet of Things, Washington, DC, September 30, 2016 (Co-Chair)

Direct/Interactive Marketing Research Summit, Las Vegas, NV, October 13-14, 2012 (Co-Chair)

Marketing Science Institute/Sloan Center for Internet Retailing Leveraging Online Media and Online Marketing, UC Riverside Palm Desert Campus and Hotel Miramonte Resort, February 6-8, 2008 (Co-Chair)

Association for Consumer Research Pre-Conference Consumers Online: Ten Years Later, October 25, 2007 (co-chair)

UCR Sloan Center for Internet Retailing Research Networking Workshop, May 3-4, 2007

AGSM Deliberative Dialogue Conference Featuring Duke University Professor Richard Staelin, April 6, 2007

Inaugural Partner Conference, Vanderbilt Sloan Center for Internet Retailing, 2003 (co-chair)

First INFORMS Marketing Science and the Internet Conference, Co-Chair, 1998

Second Annual Columbia Summer Marketing Workshop: Arden Homestead 1989

Sixth Annual Columbia/Wharton Joint Seminar: Columbia University, 1987

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Columbia Center for Telecommunications and Information Studies, "Beyond Ratings: New Directions in Audience Measurement Research": Columbia University, 1984.

Session/Track Chair

ACR North America (special session organizer); San Diego, CA 2017
Winter AMA (special session organizer); Orlando, FL, 2017
SCP (symposium organizer); St. Pete Beach, 2016
ACR North America (special session/roundtable organizer); New Orleans 2015
SCP (special session organizer); Phoenix, 2015
INFORMS Marketing Science Conference (track co-organizer); Atlanta 2014
INFORMS Marketing Science Conference (track co-organizer); Istanbul, 2013
INFORMS Marketing Science Conference (track co-organizer); Boston, 2012
ACR North America (MSI Special Session organizer, with Punam Anand Keller), St. Louis, 2011.
ACR North America (roundtable organizer), Pittsburgh, 2009.
ACR North America Conference (special session organizer), Portland, 2004.
ACR North American Conference (special session organizer); Toronto, 2003.
AMA Summer Educator's Conference (panel organizer); San Francisco, 1999
INFORMS Marketing Science Conference (panel organizer); Berkeley, 1997
INFORMS Marketing Science Conference (panel organizer); Gainesville, 1996
INFORMS Spring National Meeting (session chair); Los Angeles, 1995
TIMS XXX-Sobrapo XXIII Joint International Meeting (track chair); Rio de Janeiro 1991
ORSA/TIMS Marketing Science Conference (session chair); Berkeley 1997; Gainesville 1996;
Tucson 1994; Seattle 1988; Dallas 1986; Nashville 1985
ORSA/TIMS Joint National Meeting (session chair); Denver 1988; Miami 1986; Anaheim 1991
Los Angeles 1995
ACR Annual Conference (special session chair); Las Vegas 1985

External Administrative Service

Chair, External Review Committee, Five-year Review, Center for Research on Information Technology and Organizations (CRITO), University of California, Irvine, 2004

Professional Affiliations and Memberships

Association for Consumer Research, American Marketing Association, INFORMS (member, Society for Marketing Science), Industry Studies Association (Founding member, 2009-present), Society for Consumer Psychology

Past memberships: Association for Computing Machinery, Classification Society of North America, CommerceNet, Psychometric Society

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Membership in Professional Organizations

Elected Positions

2021-2022	AMA CB Sig, Past Chair
2020-2021	AMA CB Sig, Chair
2019-2020	AMA CB Sig, Chair-Elect
2018-2019	<i>Journal of the Association for Consumer Research</i> , Policy Board Chair
2017-2020	Perspectives Director (Industry) Association for Consumer Research Board of Directors
1998-1999	Past-President, INFORMS Section on Marketing (former name)
1996-1997	President, INFORMS Section on Marketing
1994-1995	President-Elect, TIMS College on Marketing
1992-1993	Secretary-Treasurer, TIMS College on Marketing
1992-1993	Editor, TIMS College on Marketing Newsletter (published quarterly)
1992-1999	Council Member, TIMS College on Marketing Advisory Council
1995	Program Chair, American Statistical Association, Section on Marketing
1994	Program Chair-Elect, American Statistical Association, Section on Marketing

Program Committees

ACM Conference on Electronic Commerce EC'08 2008
Association for Consumer Research (ACR) Annual Conference, multiple years 1992-present
Computers, Freedom, & Privacy Annual Conference 1996, 1997, 1998
Society for Consumer Psychology (SCP) Annual Conference, multiple years-present

Boards and Committees

Marketing Edge, Board of Trustees, Member, 2019-2022
Procter & Gamble Digital Advisory Board February 2009-2013
Marketing Science Institute, Academic Trustee 2008-2014
Web Analytics Association, Advisory Board 2005-present
Marketing Science Institute "Blue Ribbon" Committee, Web Survey Research Project 2004-2006
Inc. Magazine Web Awards 2001
EFF Pioneer Awards Judge 2001, 2002, 2003, 2004, 2005
Prize for Promise (nominator) 2002
Qbiquity, Advisory Board 2001
Internet Policy Institute 2000
eConception, Director 1999-2000
Credible.org, Advisory Board 1999
Standard for Internet Commerce, Founding Member 1999

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GII Awards, Final (“Blue Ribbon”) Judge, Business Category 1996-1999
AAAS Project (NSF) on Anonymous Communications on the Internet, Advisory Committee 1996-1997
Associate Member, CommerceNet; member, Marketing Working Group 1994-2000

Professional Experience

Summer Visiting Scholar, Interval Research Corporation, 1995-1999
Research Associate, Columbia Business School Institute for Tele-Information, 1984-1985
Social Science Analyst, Research Triangle Institute, Research Triangle Park, North Carolina, 1980-1981

Strategic Consulting

Bellcore, Bell Northern Research/Northern Telecom, Cohen, Klingenstein & Marks Inc., Daimler-Benz, Eli Lilly, Federal Reserve Board Electronic Payments System Panel, Hewlett-Packard, HotWired, Impact Planning Group, Intel Corporation, Interval Research Corporation, Kantar Futures Practice, Microsoft Corporation, Nashville Chamber of Commerce, Netscape Communications Corporation, Nielsen Media Research, Ogilvy & Mather, Procter & Gamble, (r)evolution partners, Reinault-Thomas, SBC, Starwave, Stratford Associates, Television Audience Assessment, Inc.

Expert Witness

- Written Affidavit and Deposition for the defendant, March 2024, The State of Texas v Google LLC, Case No. 22-01-88230-D.
- Written Affidavit and Deposition for the defendant, Fall 2023, Mobile Emergency Housing Corp. Inc. d/b/a Performance Automotive & Tire Center, and David Justin Lynch, individually and on behalf of all others similarly situated v. HP, Inc. d/b/a HP Computing and Printing, Inc., Case No. 5:20-CV-09157-SVK
- Written Affidavit and Deposition for the defendant, Spring 2023, Anibal Rodriquez, Sal Cataldo, Julian Santiago, and Susan Lynn Harvey, individually and on behalf of all similarly situated v. Google LLC, Case No. 3:20-cv-04688-RS
- Written Affidavit and Deposition for the defendant, Fall 2022-Spring 2023, Google Play Store Antitrust Litigation, Case No. 3:21-md-02981-JD.
- Written Affidavit and Deposition for the defendant, Spring and Summer 2022, State of Arizona, *ex. rel.* Mark Brnovich, Attorney General v. Google LLC, a Delaware Limited Liability Company, Case No. CV2020-006219.
- Written Affidavit and Deposition for the plaintiff, Spring 2019, The Reinalt-Thomas Corporation d/b/a Discount Tire, vs Mavis Tire Supply LLC, Case 1:18-cv-05877-TCB

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- Written Affidavit for the defendant, 2015, Federal Trade Commission v. Amazon.com, Inc., Case No. 2:14-CV-01038-JCC
- Written Affidavit and Deposition for the plaintiff, Summer 2012, The Reinalt-Thomas Corporation d/b/a Discount tire, a Michigan corporation v. AKH Company, Inc, a California corporation, Case No. 2:10-cv-01055-JWS
- Written Affidavit and Deposition for the defendant, Fall 2009, Autodesk, Inc. vs. Dassault Systèmes SolidWorks Corporation, Case No. 3:08-cv-04397-WHAT
- Written Affidavit for the plaintiff, Winter 2005, Ameripay, LLC v. Ameripay Payroll Ltd, US District Court for the Northern District of Illinois, Eastern Division, Case No. 2:03-cv-03534-FSH-PS
- Written Affidavits for the defendant, Spring 2003, Verizon Northwest, et.al. v. Showalter, et.al., United States District of Washington (Seattle), Case No. 2:02-cv-02342-RBL
- Written Affidavit for the defendant, Fall 2001, PowerAgent, Inc. v. Electronic Data, US Court of Appeals for the Ninth Circuit, Case No. 02-17022.
- Written Affidavit and Deposition for the defendant, Spring 2001, Amway Corporation v. Procter & Gamble Co, et.al., US District Court, Western District of Michigan, Southern Division, Case No. 1:98-CV-726 (W.D.).
- Written Affidavit, Deposition, and Trial Testimony (January 20, 1999) for the plaintiffs in the Federal trial, American Civil Liber, et al. v. Gonzales, challenging the constitutionality of the Child Online Protection Act (COPA). Eastern District of Pennsylvania (Philadelphia), Case No. 2:98-cv-05591. Lead Witness.
- Written Affidavit for the plaintiff, Orman, et.al. v America Online, Inc., et. al., (April 30, 1998), United States District Court, Virginia Eastern (Alexandria), Case No. 1:97cv264.
- Written Affidavit, Deposition, and Trial Testimony (March 22, 1996) for the plaintiffs in the joined Federal trials, ACLU v. Reno and ALA v. Reno, challenging the constitutionality of the Communications Decency Act (CDA) portion of the Telecommunications Bill of 1996, United States District Court, Pennsylvania Eastern (Philadelphia), Case No. 2:96cv963.

UNIVERSITY AND PRIVATE FOUNDATION GRANTS & CORPORATE GIFTS

Co-Founder and Co-Director, Sloan Center for Internet Retailing (2003-present) and eLab (1994-present.). Professor Tom Novak and I founded eLab/Project 2000 in 1994 to conduct scholarly research in Internet marketing and e-commerce. In March 2003, the Alfred P. Sloan Foundation awarded a grant establishing the Vanderbilt University Sloan Center for Internet Retailing. The Center moved to the University of California, Riverside, in July 2006.

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From 1994-2006, we raised over \$3 million in Sloan Center and eLab funding from the sources below:

Corporate Funding (\$932,000 Project 2000/eLab; \$450,000) Sloan Center for Internet Retailing):

CDnow, Daimler-Chrysler, FedEx, the Freedom Forum, Digeo, Financial Services Technology Consortium, First Horizon, Focalink, Gaylord Entertainment, HotWired Ventures LLC, Hewlett-Packard, Ingram Entertainment, Interval Research Corporation, iVillage, J.C. Bradford, Land's End/Sears, NCR Knowledge labs, Neomodal, Netscape, Nielsen Media Research, O'Reilly & Associates, Pitney Bowes, Roche-Diagnostics, Rouse Company, SBC, Shop at Home, Shop.org, Sprint, Sterling Commerce, Sun Microsystems, Vulcan Ventures, VF Corporation, Walmart.com, Yankelovich Partners.

Foundation and Government Grants (\$565,000):

Alfred P. Sloan Foundation, American Association for Advancement of Science, The Aspen Institute, The Freedom Forum First Amendment Center, Marketing Science Institute, John and Mary R. Markle Foundation, National Science Foundation

University Grants (\$1,075,000):

Vanderbilt University Central Administration, Vanderbilt University Research Council, Vanderbilt University Medical Center

The Sloan Center for Internet Retailing moved to UC Riverside in July 2006.

Corporate Gifts

Newsfutures 04/2007	In-kind
GSI Commerce 12/2007	\$5,500
Organize.com 12/2007	\$5,000
Procter & Gamble 09/2008	\$5,000
Miller Coors 09/2008	\$10,000
Hershey 09/2009	\$ 5,000

UC Riverside Academic Senate Omnibus Grant

2012	\$1150
2011	\$1400
2010	\$630
2009	\$1000
2008	\$1500
2007	\$1607

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George Washington University Administrative Service

University

GW University Honors Program Advisory Committee, member, Fall 2014-2017

GWSB

SWAPT, Member Fall 2021-present
Dean's Covid 19 Response Advisory Task Force Spring 2020
MBA Curriculum Taskforce, 2019
Research Committee, Spring 2017, 2018-2020
SWAPT, Member Fall 2015-Spring 2017
Strategic Planning Committee, Cross-Disciplinary Taskforce Spring 2015

Marketing Department

Department Chair, 2017
APT Chair, Spring 2014-Spring 2016

UC Riverside Administrative Service

Department

AGSM Department of Management and Marketing Department Chair, 07/1/2006-6/30/2011
Marketing Area Recruiting Search Committee, Chair, 2006-2007
Management Area Recruiting Search Committee, Ex-Officio Member, 2006-2007
Marketing Area Recruiting Search Committee, Ex-Officio Member, 2007-2008
Management Area Recruiting Search Committee, Ex-Officio Member, 2007-2008
Management Area Recruiting Search Committee, Chair, 2008-2009
Marketing Area Recruiting Search Committee, Ex-Officio, 2008-2009
First Annual AGSM Marketing Camp, May 9, 2008

College

Soba Faculty Mentor to Student American Marketing Association Club, 2012-present
AGSM Strategic Planning Committee, 2008-2009
AGSM Senior Leadership Team, 9/2007-present
AGSM Graduate Committee, 07/2006-06/2007
AGSM BASD Committee, 07/2007-2009

Campus

UCR Online Strategic Planning Committee, 2013-present
UCR Faculty Welfare Committee, 2012-present

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Donna L. Hoffman

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UCR Strategic Planning Committee, Academic Excellence Subcommittee, 2009-2010
UCR AGSM Dean Search Committee, 2006-2007
UCR Senior Marketing Council, 2006-2008
UCR School of Medicine Dean Search Committee, 2007
UCR School of Communications Task Force Co-Chair, 2008-present

Vanderbilt University Administrative Service

Faculty Senate, 1996-1999, 2004-2006
Technology Literacy Arc Seminar, sponsored by the Center for Teaching and the Associate Provost for Innovation through Technology, 2002
Owen Executive Committee 2004-2006
Dean Search Committee 2004-2005
Faculty Development Committee, 2003-2005
Marketing Recruiting Committee, 1997, 2003-2006
Owen Strategic Planning Committee, 2001-2002
Marketing Area Head, 2002-2003, 2005-2006
Chair, Marketing Recruiting Committee, 1994 (co-chair), 1999, 2001, 2002, 2004, 2005
Coordinator, Marketing Area Ph.D. Program, 1994-2001
Member, Owen Ph.D. Committee, 1993-2003
Chair, Computing/Telecommunications Strategic Planning Committee, 1993-1996
Promotion Committee, Ray Friedman, 2003
Renewal Committee, Neta Moye, 2002
Human Resources/Organizational Studies Search Committee, 1994
Director, Electronic Commerce Program, 2000-2005
Faculty Sponsor, eBusiness and Technology Club, 2000-2005
Director & Founder, Electronic Commerce Emphasis, 1996-2000
Faculty Advisor (Marketing area), Business Projects Group, 1994-2000
EMBA Curriculum Committee 2002-2003
Committee on Instruction, 1997-2000

UT Dallas Administrative Service

School of Management Executive Education Committee, 1991-1992
School of Management Teaching Committee, 1991-1993
University Committee on Faculty Standing and Conduct, 1991-1993

Columbia Business School Administrative Service

Marketing Faculty Recruiting Coordinator, 1988
Marketing Faculty Search Committee, 1988; 1986

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Faculty Research Review Committee (Chair, 1989), 1987-1990
Committee on Computer Use (Chair, 1987-1989), 1987-1990

Selected Media Recognition

Business Week "Mover & Shaker," San Francisco Webgrrls Top 25 Women on the Web,
Microtimes 100, Advertising Age "Web Warrior," *c/net* "Visionary," *Internet World* "Internet
Hero," *Newsweek* "The Net 50 People Who Matter Most on the Internet"

Documents Considered List

Academic Articles

- Agarwal, R. and E. Karahanna (2000), “Time Flies When You’re Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage,” *MIS Quarterly*, 665–694,
https://www.researchgate.net/publication/220260178_Time_Flies_When_You're_Having_Fun_Cognitive_Absorption_and_Beliefs_about_Information_Technology_Usage
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https://www.academia.edu/10256866/The_role_of_emotions_in_marketing
- Bass, F. M. (1995), “Empirical Generalizations and Marketing Science: A Personal View,” *Marketing Science*, 14, 3, G6–G19
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https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4755295
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https://www.researchgate.net/publication/24099213_Brand_Familiarity_and_Advertising_Repetition_Effects
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<https://ideas.repec.org/a/cmj/networ/y2019i14p105-113.html>
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https://www.researchgate.net/publication/2619458_Modeling_the_Clickstream_Implications_for_Web-Based_Advertising_Efforts
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https://www.researchgate.net/publication/221022960_Malicious_Interface_Design_Exploiting_the_User
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<https://arrow.tudublin.ie/ascnetcon/3/>

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- Di Geronimo, L. et al. (2020), “UI Dark Patterns and Where to Find Them: A Study on Mobile Applications and User Perception,” *CHI Conference on Human Factors in Computing Systems*, <https://dl.acm.org/doi/fullHtml/10.1145/3313831.3376600>
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Analyst Reports

- “Membership Survey: Walmart+ vs Amazon Prime —Get Ready to Rumble,” *Evercore ISI*, November 8, 2024

Bates Stamped Documents

- AMZN_00003614
- AMZN_00003616
- AMZN_00003620
- AMZN_00003624
- AMZN_00003627
- AMZN_00004634
- AMZN_00009359
- AMZN_00022835
- AMZN_00027881
- AMZN_00028277
- AMZN_00028279
- AMZN_00028911
- AMZN_00028913
- AMZN_00040706
- AMZN_00045160
- AMZN_00045894

- AMZN_00045965
- AMZN_00045966
- AMZN_00046029
- AMZN_00046381
- AMZN_00046381_PRIME_252596_T6
- AMZN_00046407_PRIME_252596_T4
- AMZN_00046465_PRIME_252596_T5
- AMZN_00046496_PRIME_252596_T1
- AMZN_00046590_PRIME_252596_T2
- AMZN_00046652_PRIME_252596_T3
- AMZN_00046832
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- AMZN_00047284_PRIME_146575_T1
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- AMZN_00047286_PRIME_146575_T3
- AMZN_00047287_PRIME_146575_T4
- AMZN_00047288_PRIME_146575_T5
- AMZN_00047289_PRIME_146575_T6
- AMZN_00047301_PRIME_CTA_REDESIGN_135644_C
- AMZN_00047302_PRIME_CTA_REDESIGN_135644_T1
- AMZN_00047303_PRIME_CTA_REDESIGN_135644_T2
- AMZN_00058597
- AMZN_00059693
- AMZN_00060317
- AMZN_00080089
- AMZN_00080204
- AMZN_00091287
- AMZN_00096144

- AMZN_00096219
- AMZN_00097374
- AMZN_00097379
- AMZN_00097386
- AMZN_00097430
- AMZN_00100312
- AMZN_00110901
- AMZN_00110931
- AMZN_00122980
- AMZN_00138080
- AMZN_00148392
- AMZN-PRM-FTC-000104660
- AMZN-PRM-FTC-000104661
- AMZN-PRM-FTC-000346781
- AMZN-PRM-FTC-000346782
- AMZN-PRM-FTC-000346783
- AMZN-PRM-FTC-000346784
- AMZN-PRM-FTC-000347608
- AMZN-PRM-FTC-000589771
- AMZN-PRM-FTC-000867061
- AMZN-PRM-FTC-002539869
- AMZN-PRM-FTC-DATA-00000001
- FTCAMZN_0003135
- FTCAMZN_0023821
- FTCAMZN_0023823
- FTCAMZN_0023825
- FTCAMZN_0023826
- FTCAMZN_0023827

- FTCAMZN_0023904
- FTCAMZN_0023956
- FTCAMZN_0024133

Books

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Note: In addition to the documents on this list, to form my opinions I considered all documents cited in my report and on the materials collected in the following appendices:

- Appendix C
- Appendix D
- Appendix E
- Appendix F

Appendix C

attached separately

Appendix D: Analysis of Paid Digital Membership/Subscription Programs and Government Websites

1. This appendix summarizes the methodology for selecting the set of paid digital membership/subscription programs and government websites in my analyses. It also describes the steps involved in the data collection process for the analysis discussed in Section IX of my expert report dated February 24, 2025 (“Hoffman Report”).

A. Analysis of Paid Digital Membership/Subscription Programs

1. Selection of Paid Digital Membership/Subscription Programs

2. I began my analysis by identifying the most subscribed categories of paid digital membership/subscription programs. To do this, I relied on the summary results from a survey conducted by Forbes Advisor, a branch of Forbes, of 1,005 American consumers who were asked to indicate the digital subscription categories to which they subscribe.¹ Forbes Advisor reported the top 19 paid digital membership/subscription categories that survey respondents chose most frequently, two examples of companies in each category, and the percentage of survey respondents subscribed to each category. Forbes Advisor did not report the underlying survey questions or the full list of companies in each category. Among these 19 categories, I reviewed those subscribed to by at least 10% of survey respondents, i.e., ~100 respondents. This yielded ten categories for analysis, including streaming, delivery, music, cloud storage, gaming, food delivery, live TV, home security, news, and cybersecurity.

3. The following describes how I identified the non-Amazon-owned paid digital membership/subscription programs to evaluate under each category.

¹ See “The Digital Subscriptions Americans Are Most and Least Likely to Cut in 2023,” *Forbes Advisor*, January 12, 2023, <https://www.forbes.com/advisor/personal-finance/digital-subscriptions-most-least-likely-to-cut-2023/>. Forbes Advisor is a branch of Forbes magazine focused on consumer finance advisory, which covers topics such as “consumer credit, debt, banking, investing, insurance, loans, real estate and travel.” See “About Us” *Forbes Advisor*, <https://www.forbes.com/advisor/>.

- a. For seven out of ten categories, I identified the top five paid digital membership/subscription programs by the size of their subscriber base. Specifically:
 - i. In the **Streaming** category, I identified the following as the six most popular paid digital membership/subscription programs by subscriber count: Netflix, Amazon Prime Video, Disney+, Max, Paramount+, and Hulu. I excluded Amazon Prime Video from my analysis because it is an Amazon-owned paid digital membership/subscription program.
 - ii. In the **Music** category, I identified the following as the six most popular paid digital membership/subscription programs that are available in the U.S for English-speaking consumers by subscriber count: Spotify Premium, Apple Music, Amazon Music, YouTube Music Premium, SiriusXM, and Pandora.² I excluded Amazon Music because it is an Amazon-owned paid digital membership/subscription program.
 - iii. In the **Cloud Storage** category, I identified the following as the seven most popular digital membership/subscription programs that are available in the U.S. by percent of subscribers: Google One, iCloud, Dropbox Plus, Microsoft 365 (for OneDrive), Amazon Drive Cloud, Box, and Mega.³ I excluded Amazon Drive because it is an Amazon-owned paid digital membership/subscription program. I also excluded iCloud, because consumers can only enroll in the paid iCloud membership/subscription program via the

² Tencent Music is among the top paid digital membership/subscription programs based on the source, but this service is only available in China. See “About Us,” *Tencent Music Entertainment*, <https://www.tencentmusic.com/en-us/about-us.html>. NetEase Music is among the top paid digital membership/subscription programs based on the source, but this service is only available in the U.S. in Chinese. See “Netease Music App Download 163 Music,” *CN App Store*, <https://getcn.app/netease-music-app-download/>; “Global Digital Subscription Snapshot: Q2 Report 2022,” *FIPP* and *Piano*, <https://www.fipp.com/wp-content/uploads/2022/06/GDS-Snapshot-Q2-2022.pdf>.

³ “Tech Giants in the U.S. 2019 report,” *Statista Consumer Insights*, April 2019, <https://www.statista.com/study/63116/tech-giants-in-the-us-report/>.

iCloud app on an Apple device or by installing the iCloud app on a Windows PC and cannot initiate the enrollment process on a desktop browser.

- iv. In the **Cybersecurity** category, I identified the following as the top six paid third-party antivirus programs consumers use, based on the percentage of subscribers: Norton, McAfee, Malwarebytes, Avast, AVG, and Webroot.⁴ I excluded Norton from my analysis because completing the desktop enrollment flow of its paid digital membership/subscription program required a Social Security Number.
- v. In the **Live TV** category, I identified the following as the top five live TV subscriptions by subscriber count: YouTube TV, Hulu TV, Sling TV, Fubo TV, and DirectTV Stream.⁵ I excluded DirectTV Stream from my analysis because completing the desktop enrollment flow of its paid digital membership/subscription program required a Social Security Number.
- vi. In the **Gaming** and **News** categories, I used the top five paid digital subscription programs or companies identified in the source, without further adjustments.

b. For one of the ten categories, i.e., the **Home Security** category, I was only able to identify the top four paid digital membership/subscription programs by the size of their subscriber base. Specifically, I understand “Home Security” in the Forbes Advisor article to refer to paid digital membership/subscription programs related to smart home security services, such as Ring and Google Nest, since they were the examples specified in the Forbes Advisor survey results. In order to identify the top paid digital membership/subscription programs in this

⁴ “2024 Antivirus Trends, Statistics, and Market Report,” *Security.org*, updated November 20, 2024, <https://www.security.org/antivirus/antivirus-consumer-report-annual/>.

⁵ “YouTube TV Is Forecasted To Be The Largest Pay-TV Distributor In 2026,” *Forbes*, April 7, 2024, <https://www.forbes.com/sites/bradagate/2024/04/07/youtube-tv-is-forecast-to-be-the-largest-pay-tv-distributor-in-2026/>.

category, I identified the top home security brands by reviewing the top security devices used in the home by consumers.⁶ Accordingly, I identified the following as the eleven top companies in this category: Ring, ADT, Google Nest, Wyze, Honeywell, SimpliSafe, Xfinity, Vivint, AT&T Digital Life, Guardian, and Brinks. I excluded Ring because it is owned by Amazon. I also excluded ADT, Honeywell, Vivint, Guardian, and Brinks, because they do not offer paid digital membership/subscription programs and predominantly provide professional installation services, for which consumers must call these companies to get a quote.⁷ In addition, I excluded AT&T Digital Life because it was discontinued in 2022.⁸ Since additional data beyond the top eleven home security companies were not available and only four of these eleven companies offered paid digital membership/subscription programs as described above, I only included these four companies (i.e., Google Nest, Wyze, SimpliSafe, and Xfinity) in my analysis.

- c. Publicly available information on subscriber base was not available for the remaining two categories, i.e., **Delivery** and **Food Delivery** (as defined below). For those two categories, I instead identified the top five paid digital membership/subscription programs based on other available metrics that approximate the size of their subscriber base, such as market share based on number of apps downloaded by consumers, or ecommerce sales in dollars. Specifically:
 - i. In the **Delivery** category, I understand “Delivery” in the Forbes Advisor survey to refer to paid digital membership/subscription programs related to the delivery of retail goods, such as Amazon

⁶ “2025 Home Security Market Report,” *SafeHome*, February 11, 2025, <https://www.safehome.org/resources/home-security-industry-annual/#top-home-security-brands>.

⁷ “Home Security Systems by ADT,” *ADT*, <https://www.adt.com/cf/bps/>; “Security,” *Honeywell Home*, <https://www.honeywellhome.com/us/en/products/security/>; “Vivint® Smart Home Security & Alarm Systems,” *Vivint*, <https://www.vivint.com/>; “Guardian Protection Home Security Provider,” *Guardian Protection*, <https://guardianprotection.com/>; “Home Security System & 24/7 Pro Monitoring,” *Brinks Home*, <https://brinkshome.com/>.

⁸ “AT&T Digital Life Home Security System Cost & Pricing,” *SafeHome.org*, <https://www.safehome.org/security-systems/att-digital-life/>.

Prime and Walmart+, since they were the examples specified in the Forbes Advisor survey. Consequently, I identified the top paid digital membership/subscription programs in this category based on the top retail companies that offer paid digital membership/subscription programs that include delivery benefits. The ten biggest retail companies in the US by ecommerce sales, and their corresponding paid digital membership/subscription programs, when available, are as follows: Amazon (i.e., Amazon Prime), Walmart (i.e., Walmart+), Apple (i.e., Apple One), eBay (i.e., eBay Store), The Home Depot, Target (i.e., Target Circle 360), Costco (i.e., Costco Membership), Kroger (i.e., Kroger Boost), Best Buy (i.e., My Best Buy Plus), and Carvana (i.e., CarvanaCare).⁹ I excluded Amazon from my analysis. I also excluded The Home Depot since it does not offer a paid digital membership/subscription program. In addition, I excluded Apple, eBay, and CarvanaCare, since their paid digital membership/subscription programs do *not* offer benefits related to the delivery of retail goods in those programs. These companies were excluded in order to ensure that this category is consistent with the premise of the category from the Forbes Advisor article.

- ii. In the **Food Delivery** category, I identified the following companies as the top six most popular food delivery companies based on the number of apps downloaded by consumers:

⁹ “The 10 biggest retail companies in the US, by ecommerce sales,” *EMARKETER*, November 15, 2024, <https://www.emarketer.com/insights/biggest-retail-companies-united-states/>. See, e.g., “Amazon Prime,” *Amazon*, <https://www.amazon.com/amazonprime>; “Walmart+ Membership | Free 30-Day Trial,” *Walmart*, <https://www.walmart.com/plus>; “Apple One,” *Apple*, <https://www.apple.com/apple-one/>; “eBay Stores overview,” *eBay*, <https://www.ebay.com/help/selling/ebay-stores/ebay-stores?id=4071>; “Target Circle™,” *Target*, <https://www.target.com/l/target-circle/-/N-pzno9#Circle360>; “What is CarvanaCare,” *Carvana*, <https://www.carvana.com/help/extended-coverage-and-repairs/what-is-carvanacare>; “My Best Buy Membership,” *Best Buy*, <https://www.bestbuy.com/site/electronics/best-buy-membership/pcmcat1679668833285.c?id=pcmcat1679668833285>; “Join Costco,” *Costco*, <https://www.costco.com/join-costco.html>; “Boost Membership Free Trial: Delivery & Gas Savings,” *Kroger*, <https://www.kroger.com/pr/boost>; “The Home Depot,” *Home Depot*, <https://www.homedepot.com/>.

DoorDash, Uber Eats, Instacart, Grubhub, 7-Eleven, and HelloFresh.¹⁰ All of these companies offered paid digital membership/subscription programs, but I excluded Grubhub from my analysis because I understand that Amazon has an ownership stake in that paid digital membership/subscription program.¹¹

4. Exhibit D.1 below provides a list of the 48 paid digital membership/subscription programs I reviewed in my analysis. The exhibit depicts the ten categories and the top paid digital membership/subscription programs identified within each category, as well as the metric and the data sources that were used to identify these paid digital membership/subscription programs.

¹⁰ “Number of downloads of leading online food delivery and takeout apps in the United States in 2023,” *Statista*, March 4, 2024, <https://www.statista.com/statistics/1369528/food-delivery-app-downloads-united-states/>, accessed on July 22, 2024.

¹¹ See “Amazon Raises Stake in Grubhub, Embeds Food Delivery in App,” *Bloomberg*, May 30, 2024, <https://www.bloomberg.com/news/articles/2024-05-30/amazon-raises-stake-in-grubhub-embeds-food-delivery-within-app>; Grubhub Press Release, “Amazon Announces Grubhub+ as Ongoing Prime Member Offer; Customers Can Now Order Grubhub Directly from Amazon.com and the Amazon Shopping App,” May 30, 2024, <https://about.grubhub.com/news/amazon-announces-grubhub-as-ongoing-prime-member-offer-customers-can-now-order-grubhub-directly-from-amazon-com-and-the-amazon-shopping-app/>.

Exhibit D.1 Paid Digital Membership/Subscription Programs Included in the Analysis

No.	Subscription Service	Metric	Source
A	Streaming		
A.1	Netflix	Subscriber Count	"Top Streaming Statistics in 2024," <i>Forbes</i> , https://www.forbes.com/home-improvement/internet/streaming-stats/
A.2	Disney+		
A.3	Max		
A.4	Paramount+		
A.5	Hulu		
B	Delivery		
B.1	Walmart+	eCommerce Sales	"The 10 biggest retail companies in the US, by ecommerce sales," <i>EMARKETER</i> , https://www.emarketer.com/insights/biggest-retail-companies-united-states/
B.2	Target Circle 360		
B.3	My Best Buy Plus		
B.4	Costco		
B.5	Kroger Boost		
C	Music		
C.1	Spotify Premium	Subscriber Count	"Global Digital Subscription Snapshot Q2 2022," <i>FIPP</i> , https://www.fipp.com/wp-content/uploads/2022/06/GDS-Snapshot-Q2-2022.pdf
C.2	Apple Music		
C.3	YouTube Music Premium		
C.4	SiriusXM		
C.5	Pandora		
D	Cloud Storage		
D.1	Google One (for Google Drive)	Percent of Subscribers	"Tech Giants in the U.S. 2019 report," <i>Statista Consumer Insights</i> , https://www.statista.com/study/63116/tech-giants-in-the-us-report/
D.2	Dropbox Plus		
D.3	Microsoft 365 (for OneDrive)		
D.4	Box		
D.5	Mega		
E	Gaming		
E.1	PlayStation Plus (PS Plus)	Subscriber Count	"Subscriber count of leading cloud gaming and gaming subscription services worldwide as of March 2023 (in millions)," <i>Statista</i> , https://www.statista.com/statistics/1276305/subscriber-count-top-gaming-subscriptions/
E.2	Nintendo Switch Online		
E.3	Xbox Game Pass		
E.4	NV DIA GeForce Now		
E.5	EA Play		
F	Food Delivery		
F.1	DoorDash DashPass	Number of App Downloads	"Number of downloads of leading online food delivery and takeout apps in the United States in 2023 (in millions)," <i>Statista</i> , https://www.statista.com/statistics/1369528/food-delivery-app-downloads-united-states/
F.2	Uber One (for Uber Eats)		
F.3	Instacart+		
F.4	7-Eleven GoldPass		
F.5	Hello Fresh		
G	Live TV		
G.1	YouTube TV	Subscriber Count	"YouTube TV Is Forecasted To Be The Largest Pay-TV Distributor In 2026," <i>Forbes</i> , https://www.forbes.com/sites/bradagate/2024/04/07/youtube-tv-is-forecast-to-be-the-largest-pay-tv-distributor-in-2026/
G.2	Hulu TV		
G.3	Sling TV		
G.4	Fubo TV		
H	Home Security		
H.1	Nest Aware (for Google Nest)	Percent of Subscribers	"2023 Home Security Market Report," <i>SafeHome.org</i> , https://www.safehome.org/resources/home-security-industry-annual/#top-home-security-brands
H.2	Wyze		
H.3	SimpliSafe		
H.4	Xfinity		
I	News		
I.1	New York Times	Subscriber Count	"Leading English-language news websites worldwide from March 2021 to March 2023, by number of digital-only subscriptions (in 1,000s)," <i>Statista</i> , https://www.statista.com/statistics/785919/worldwide-number-of-digital-newspaper-subscribers/
I.2	Wall Street Journal		
I.3	Washington Post		
I.4	Gannett/USA Today		
I.5	Substack		
J	Cybersecurity		
J.1	McAfee	Percent of Subscribers	"Antivirus in the Age of Evolving Threats: 2024 Antivirus Market Report" <i>Security.org</i> , https://www.security.org/antivirus/antivirus-consumer-report-annual/
J.2	Malwarebytes		
J.3	Avast		
J.4	AVG		
J.5	Webroot		

2. Mapping of the FTC's Allegations to Reviewed UI Features

5. The table below summarizes the mapping between the allegations in the FTC's complaint and the UI design elements that were analyzed in the desktop enrollment processes and desktop cancellation processes of the 48 paid digital membership/subscription programs included in my analysis.

Exhibit D.2 FTC's Allegations and At-Issue UI Design Elements Relating to Desktop Enrollment Flows

Analyzed UI Design Element	FTC's Allegations in Amended Complaint ¶
1. The company offers a free trial that automatically renews and charges payment method if not cancelled before the end of the trial period	[1]
2. An overlay is used to make an offer for the paid digital membership/subscription program	38
3. The benefits of the paid digital membership/subscription program are repeated multiple times on a given webpage	39, 44.a–c, 45.a, 71–73, 76, 231.b
4. The benefits of the paid digital membership/subscription program are repeated across multiple webpages	54–59, 64–76, 231.b
5. Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage	42, 44.c–d, 50, 66, 74, 231.c–d
6. Information about auto-renewal is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program	43, 48, 54
7. Information about the price of the paid digital membership/subscription program is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program	43, 48, 54
8. Information about the benefits of the paid digital membership/subscription program is presented using larger or differently colored text or other visual elements compared to other text on the same webpage	231.b
9. Call-to-action feature to complete enrollment in the paid digital membership/subscription program or a free trial of the program is the same color scheme as other call-to-action features encountered by a consumer prior to completing enrollment.	231.a

Note:

[1] The FTC does not allege that a free trial that automatically renews is itself a “dark pattern” or otherwise a problematic UI design element, but I collected this information to provide context on the prevalence of such offers, as many at-issue “dark pattern” design elements alleged by the FTC are related to free trial offers.

Exhibit D.3 FTC's Allegations and At-Issue UI Design Elements Relating to Desktop Cancellation Flows

Analyzed UI Design Element	FTC's Allegations in Amended Complaint ¶
1. The “manage my account” webpage includes a feature that a consumer can click to advance to the cancellation flow.	131–133
2. The website’s landing page does not include a feature the consumer can click to start the cancellation flow	231c.ii
3. The cancellation flow involves navigating multiple webpages	154, 231a.ii
4. Call-to-action features for alternatives to immediately cancelling the paid digital membership/subscription program (or a free trial of the program) are present in the cancellation flow	147–153, 231d.iii
5. The cancellation flow mentions the benefits of the paid digital program’s membership/subscription program	231c.ii
6. The cancellation flow includes warning icons.	231b.ii
7. Call-to-action feature to cancel the paid digital membership/subscription program (or a free trial of the program) and the call-to-action feature to remain enrolled in the program that are presented on the same page of the cancellation flow differ in color.	231d.iii

3. Screenshot Collection

a. Enrollment

6. The 48 companies whose desktop processes I analyzed can be divided into three categories based on the types of products/services they offer: (1) companies that also sell products or services other than the paid digital membership/subscription programs itself (e.g., Walmart, Best Buy) (“Category 1”),¹² (2) companies that use a freemium pricing model (i.e., companies that offer a free version of their product or service alongside paid digital membership/subscription programs for premium content and services (e.g., YouTube Music, Wall Street Journal) (“Category 2”), and (3) companies that only offer paid digital membership/subscription programs for streaming content or the services they offer (e.g. Netflix, Xfinity) (“Category 3”). As part of my analysis, I reviewed 16 companies in Category 1, 15 companies in Category 2, and 17 companies in Category 3, as summarized in Exhibit D.4.

¹² I note that my analysis found that these Category 1 companies that I analyzed promote their optional paid digital membership/subscription programs through cross-sells during the purchase processes.

7. As discussed in detail below, the steps followed to collect the screenshots of the desktop enrollment process for each company differs across these three categories due to the differences in the nature of the enrollment processes involved. Specifically, companies in Category 1 (e.g., Walmart/Walmart+) advertised or promoted their respective paid digital membership/subscription programs as cross-sells when consumers were in the process of purchasing other products/services; companies in Category 2 (e.g., YouTube/YouTube Music) advertised or promoted their respective paid digital membership/subscription programs as up-sells when consumers consumed the free content and services offered by the company; and companies in Category 3 (e.g., Netflix) simply enabled consumers to directly sign up for their respective paid digital membership/subscription programs (i.e., the product or the service they provide for their paying customers' use).

Exhibit D.4 Categorization of Enrollment Flows

No.	Subscription Service	Category	Business Model
A Streaming			
A.1	Netflix	Category 3	Sell membership/subscriptions only
A.2	Disney+	Category 3	Sell membership/subscriptions only
A.3	Max	Category 3	Sell membership/subscriptions only
A.4	Paramount+	Category 3	Sell membership/subscriptions only
A.5	Hulu	Category 3	Sell membership/subscriptions only
B Delivery			
B.1	Walmart+	Category 1	Sell products/services and memberships/subscriptions
B.2	Target Circle 360	Category 1	Sell products/services and memberships/subscriptions
B.3	My Best Buy Plus	Category 1	Sell products/services and memberships/subscriptions
B.4	Costco	Category 1	Sell products/services and memberships/subscriptions
B.5	Kroger Boost	Category 1	Sell products/services and memberships/subscriptions
C Music			
C.1	Spotify Premium	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
C.2	Apple Music	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
C.3	YouTube Music Premium	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
C.4	SiriusXM	Category 3	Sell membership/subscriptions only
C.5	Pandora	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
D Cloud Storage			
D.1	Google One (for Google Drive)	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
D.2	Dropbox Plus	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
D.3	Microsoft 365 (for OneDrive)	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
D.4	Box	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
D.5	Mega	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
E Gaming			
E.1	PlayStation Plus (PS Plus)	Category 1	Sell products/services and memberships/subscriptions
E.2	Nintendo Switch Online	Category 1	Sell products/services and memberships/subscriptions
E.3	Xbox Game Pass	Category 1	Sell products/services and memberships/subscriptions
E.4	NVIDIA GeForce Now	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
E.5	EA Play	Category 1	Sell products/services and memberships/subscriptions
F Food Delivery			
F.1	DoorDash DashPass	Category 1	Sell products/services and memberships/subscriptions
F.2	Uber One (for Uber Eats)	Category 1	Sell products/services and memberships/subscriptions
F.3	Instacart+	Category 1	Sell products/services and memberships/subscriptions
F.4	7-Eleven GoldPass	Category 1	Sell products/services and memberships/subscriptions
F.5	Hello Fresh	Category 3	Sell membership/subscriptions only
G Live TV			
G.1	YouTube TV	Category 3	Sell membership/subscriptions only
G.2	Hulu TV	Category 3	Sell membership/subscriptions only
G.3	Sling TV	Category 3	Sell membership/subscriptions only
G.4	Fubo TV	Category 3	Sell membership/subscriptions only
H Home Security			
H.1	Nest Aware (for Google Nest)	Category 1	Sell products/services and memberships/subscriptions
H.2	Wyze	Category 1	Sell products/services and memberships/subscriptions
H.3	SimpliSafe	Category 1	Sell products/services and memberships/subscriptions
H.4	Xfinity	Category 3	Sell membership/subscriptions only
I News			
I.1	New York Times	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
I.2	Wall Street Journal	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
I.3	Washington Post	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
I.4	Gannett/USA Today	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
I.5	Substack	Category 2	Sell memberships/subscriptions but give some basic version of the membership for free
J Cybersecurity			
J.1	McAfee	Category 3	Sell membership/subscriptions only
J.2	Malwarebytes	Category 3	Sell membership/subscriptions only
J.3	Avast	Category 3	Sell membership/subscriptions only
J.4	AVG	Category 3	Sell membership/subscriptions only
J.5	Webroot	Category 3	Sell membership/subscriptions only

8. Below I discuss the process of taking screenshots of the enrollment processes I reviewed across each of these categories.

(1) Category 1: Companies that sell products/services and paid digital membership/subscription programs

9. As I discussed in Section V, Amazon offers a variety of products and services.¹³ Its optional paid digital membership/subscription program, Amazon Prime, provides members with a variety of benefits, including delivery and shopping benefits (e.g., access to free and fast delivery, discounts on qualifying products).¹⁴ The FTC claims that Amazon “upsells,” which are actually “cross-sells” as I explain in Section VIII of the Hoffman Report, the Prime membership to consumers before they place their order on the final checkout page,¹⁵ and “most [Prime] subscriptions occur through the Amazon shopping checkout process.”¹⁶

10. Similar to Amazon, companies in Category 1 sell products or services on their websites independent from the optional paid digital memberships/subscription programs they offer. Similar to Amazon, all of the 16 companies in Category 1 also advertised or promoted cross-sells of their paid digital membership/subscription programs during the purchase processes.¹⁷ Thus, for the 16 companies in this category, my analysis involved collecting screenshots of purchase processes focusing on the checkout process. The following steps were involved in capturing the screenshots:¹⁸

- a. Visit the website’s home page.
- b. Navigate to view a product.
- c. Add the product to the shopping cart and proceed to the checkout page.

¹³ Amazon.com, Inc., SEC Form 10-K for Period Ended December 31, 2022, Filed on February 3, 2022, <https://www.sec.gov/ix?doc=/Archives/edgar/data/1018724/000101872423000004/amzn-20221231.htm>.

¹⁴ “Amazon Prime,” *Amazon*, <https://www.amazon.com/amazonprime>; “Prime Membership Benefits,” *Amazon*, <https://www.amazon.com/b/node=23945845011>.

¹⁵ Amended Complaint, ¶ 36. As discussed in Section VIII.B, while the FTC and Amazon refer to the UPDP as an “upsell,” this type of offer is generally known as a “cross-sell” in the marketing literature and industry best practices.

¹⁶ Amended Complaint, ¶ 34.

¹⁷ Section IX.A.2.(8).

¹⁸ See **Appendix E**. Due to differences in website designs, the checkout process for different websites can vary dramatically. To make sure the screenshots taken are complete and following the steps described above, a reviewer checked the screenshots after they were taken to perform quality control.

- d. When the website advertises or promotes a cross-sell of the paid digital membership/subscription program, click/accept the cross-sell.
- e. Go through the enrollment flow.
- f. Log in or sign up for an account as needed.

11. One of the FTC’s allegations is related to companies showing the cross-sell offer multiple times during the customer purchase process. Specifically, the FTC claims that “Amazon presents all consumers who are not Prime subscribers with at least one opportunity (also known as an ‘upsell’)—and often several opportunities—to join Prime before those consumers place their order on the final checkout page.”¹⁹ I assessed if cross-sells were offered multiple times by the 16 companies in category 1, i.e., companies that sell products/services and paid digital membership/subscription programs, during the purchase process. As part of this analysis, I included a second set of screenshots of the purchase process in which the customer declined *all* paid digital membership/subscription program offers and continued their checkout process until the purchase process was complete.²⁰

12. The following steps were involved in capturing these additional screenshots:

- a. Visit the website’s home page.
- b. Navigate to view a product.
- c. Add the product to the shopping cart and check out.
- d. If the website advertises or promotes a cross-sell of the paid digital membership/subscription program, decline or ignore the offer.
- e. Continue the purchase flow until the website advertises or promotes a cross-sell of the paid digital membership/subscription program again. When offered, repeat step d.
- f. Complete the purchase flow without enrolling in the paid digital membership/subscription program or finalizing the order by declining or ignoring all offers for the paid digital membership/subscription program.

¹⁹ Amended Complaint, ¶ 36. As discussed in Section VIII.B, while the FTC and Amazon refer to the UPDP as an “upsell,” this type of offer is generally known as a “cross-sell” in the marketing literature and industry best practices.

²⁰ Due to differences in website designs, the checkout process for different websites can vary dramatically. To make sure the screenshots taken are complete and following the steps described above, a reviewer checked the screenshots after they were taken to perform quality control.

g. Log in or sign up for an account as needed.

(2) Category 2: Companies that sell paid digital membership/subscription programs but give some basic version of the product and/or services for free (i.e., freemium companies)

13. I reviewed the enrollment processes of 15 Category 2 companies that use a freemium pricing model (i.e., companies that offer a free version of their product or service alongside paid digital membership/subscription programs for premium content and services), i.e., Category 2 companies. These companies show offers for paid digital membership/subscription programs for premium content and services while consumers browse/use the company's website for free content and services. Thus, part of my analysis involved collecting screenshots of customers browsing the website or using the free content or service. Once the company made an offer for their paid digital membership/subscription program, the offer was declined and browsing activity with the free content or service on the website continued until another paid digital membership/subscription program offer was made. The offer to enroll in the paid digital membership/subscription program was accepted at this juncture. This methodology of declining the first offer is consistent with my assessment of Category 1 companies for which I analyzed the FTC's allegations related to multiple offers for the paid digital membership/subscription program during the checkout process.

14. The following steps were involved in capturing the screenshots:²¹

- a. Visit the website's home page.
- b. Browse the website to view free content or use a free version of the product. Log in or sign up for a free account as needed.
- c. If the website advertises or promotes an upsell of the paid digital membership/subscription program, decline or ignore the offer.

²¹ Due to differences in website designs, the enrollment process for different websites can vary dramatically. To make sure the screenshots taken are complete and following the steps described above, a reviewer checked the screenshots after they were taken to perform quality control.

- d. Continue to browse the website to view/read free content or use a free version of the product until the website advertises or promotes the paid digital membership/subscription program again.
- e. When the website advertises or promotes an upsell of the paid digital membership/subscription program offer for the second time, accept the offer. If the website does not upsell the paid digital membership/subscription program the second time, after interacting with the website for 10 mins, find “upgrade,” “subscribe,” or similar options to enroll in the paid digital membership/subscription program.
- f. Go through the enrollment flow to sign up for the paid digital membership/subscription program.

(3) Category 3: Companies that sell paid digital membership/subscription programs only

15. I reviewed enrollment processes of 17 companies that only offer paid digital membership/subscription programs for streaming content or the services they offer, i.e., Category 3 companies. All of these companies offer paid digital membership/subscription programs on their home page. Unlike the other types of companies discussed above, consumers are required to sign up for paid digital memberships/subscriptions to consume content or services on these websites. Thus, my analysis reviews the enrollment process for these programs, starting from the homepage of the company.²²

16. The following steps were involved in capturing the screenshots:

- a. Visit the website’s home page.
- b. Accept the offer for the paid digital membership/subscription program.
- c. Go through the enrollment flow to sign up for the paid digital membership/subscription program.

²² Due to differences in website designs, the enrollment process for different websites can vary dramatically. To make sure the screenshots taken are complete and following the steps described above, a reviewer checked the screenshots after they were taken to perform quality control.

b. Cancellation

17. The following steps were involved in capturing the screenshots of the 48 companies I reviewed for the cancellation process:²³

- a. Start from the website's home page.
- b. Navigate to the account management page.
 1. If a button to cancel the paid digital membership/subscription program is available, click on it.
 2. Otherwise, navigate to the membership/subscription management page.
 - a. Once on the membership/subscription management page, click on the button to cancel the paid digital membership/subscription program.
 - c. Go through the cancellation flow to cancel the paid digital membership/subscription program.

18. Note that Costco, SimpliSafe, and Xfinity do not offer options to cancel their paid digital membership/subscription programs online, even though consumers can subscribe to these programs online. Accordingly, there are no cancellation flow screenshots for Costco, SimpliSafe, and Xfinity. Instead, only home screen screenshots were captured for these companies.

4. Screenshots for At-Issue UI Design Elements

19. Each of the 48 paid digital membership/subscription program's screenshots were reviewed by two independent coders²⁴ across 9 enrollment process UI design elements and 7 cancellation process UI design elements as discussed above.²⁵

²³ Due to differences in website designs, the cancellation process for different websites can vary dramatically. To make sure the screenshots taken are complete and following the steps described above, a reviewer checked the screenshots after they were taken to perform quality control.

²⁴ All coders performing this analysis are educated and have college degrees.

²⁵ Exhibit D.2; Exhibit D.3.

20. The coders were trained and were asked to follow the coding instructions provided in **Appendix D.1.**²⁶ At the end of the coding process, the raw level of agreement between the two coders' assessment of the presence or absence of at-issue UI design elements in the enrollment and cancellation processes was 95.8%.²⁷

21. To account for the possibility of "chance" as the source of agreement between the two coders, I calculated a reliability coefficient, called Cohen's kappa, that adjusts for this likelihood of chance as the source of agreement between coders. The Cohen's kappa, which is one of the most widely used intercoder reliability statistics aside from simple percent agreement,²⁸ for my analysis was 89.5%.²⁹ According to academic literature, a Cohen's kappa of 0.80 or greater suggests "[a]lmost [p]erfect" agreement.³⁰

22. For the 4.2% of the time where the two coders differed on their assessment of the presence or absence of design elements at-issue in the enrollment and cancellation processes, a third independent coder reviewed the screenshot in question and finalized the coding, resolving disagreements by discussion with the coding team.

23. The results of the analysis of paid digital membership/subscription programs are summarized in Exhibit 54—Exhibit 55 and Exhibit 74 in Section IX of the Hoffman Report.

24. There were two instances during the coding process that required additional steps to what is described above to complete the coding.

25. First, certain digital membership/subscription programs were not eligible to be reviewed for one of the at-issue UI design elements for the desktop enrollment process ("call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage") and one of the at-issue UI design elements for the desktop cancellation process, (i.e., "call-to-action feature to cancel the paid digital membership/subscription program (or a free trial of the program) and

²⁶ For Category 1 companies, there are two bundles of screenshots (i.e., accept 1st offer, decline all offers) for enrollment. The coders were asked to evaluate both bundles of screenshots. If the relevant UI design element was identified in either bundle of screenshots, the coder would mark the UI design element as present for that paid digital membership/subscription program.

²⁷ Workpaper 3.

²⁸ Neuendorf, K. A., *The Content Analysis Guidebook*, Second Edition, p. 176.

²⁹ Workpaper 3.

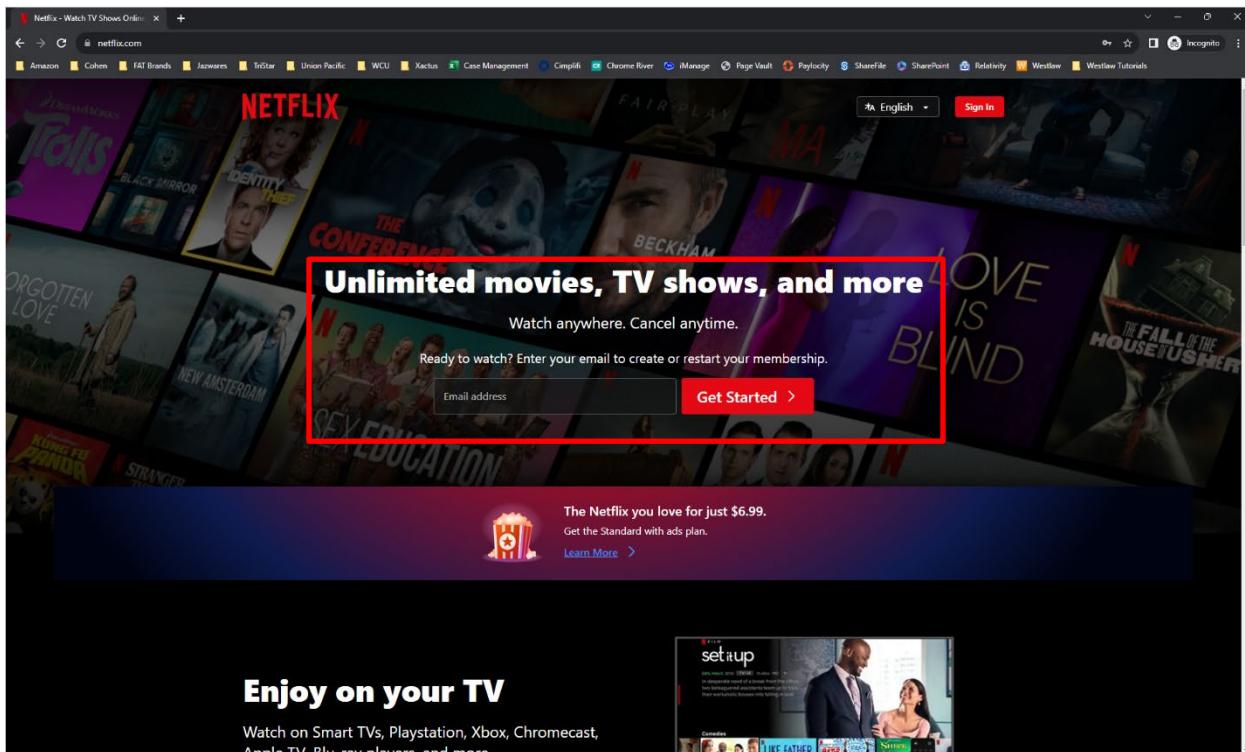
³⁰ Landis, J. R. and G. G. Koch (1977), "The Measurement of Observer Agreement for Categorical Data," *Biometrics*, 33, 159–174.

the call-to-action feature to remain enrolled in the program that are presented on the same page of the cancellation flow differ in color.”). Thus, these digital membership/subscription programs are not coded for that metric and noted accordingly in Exhibit 55 and Exhibit 74 in Section IX of the Hoffman Report. Specifically:

- a. 37 of the 48 paid digital membership/subscription programs in my analysis did not contain a “decline” call-to-action feature to compare against the call-to-action feature to accept the offer. Therefore, these programs were not applicable to be reviewed for whether call-to-action features to accept and decline the offer differed in color and/or size.³¹ These paid digital membership/subscription programs are denoted by “No decline option” in Exhibit 55 in Section IX of the Hoffman Report. For example, Netflix (a Category 3 program), one of the top five Streaming paid digital membership/subscription programs, does not present the call-to-action feature to decline the paid digital membership/subscription program offer, as shown in Exhibit D.5. This is not surprising, as consumers who do not have a Netflix subscription would have to directly sign up for the Netflix paid digital membership/subscription program on the company’s website to be able to access Netflix content. If the consumer decides not to sign up for Netflix once on the webpage, they can simply leave the website. As another example, Target (a Category 1 program), one of the top five paid digital membership/subscription Delivery programs, directly embeds an offer for Target Circle 360 in its product purchase flow and asks the consumer to “Add to Cart” the offer as part of their product purchase flow, as shown in Exhibit D.6. If the consumer does not want to accept the offer, or “decline” it, they can do so by not adding this offer to the cart, without having to click on a call-to-action feature to “decline.”

³¹ Among the 37 paid digital membership/subscription programs, 10 are Category 1 programs, 11 are Category 2 programs, and 16 are Category 3 programs.

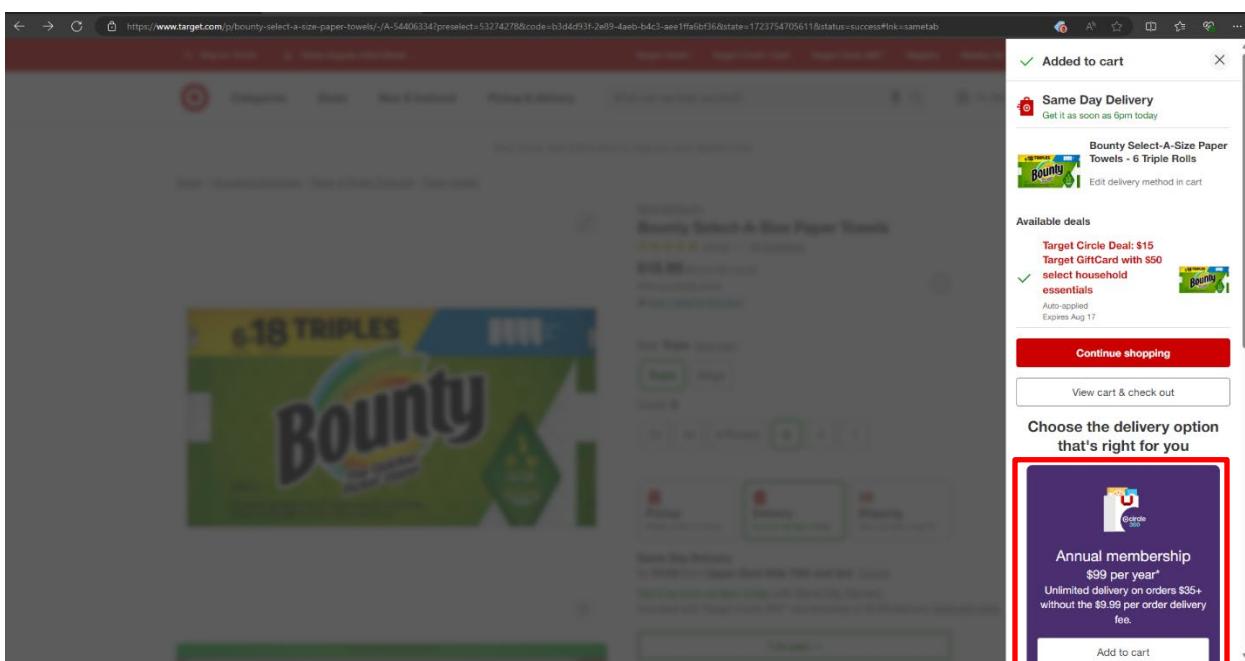
Exhibit D.5 Netflix Membership Offer

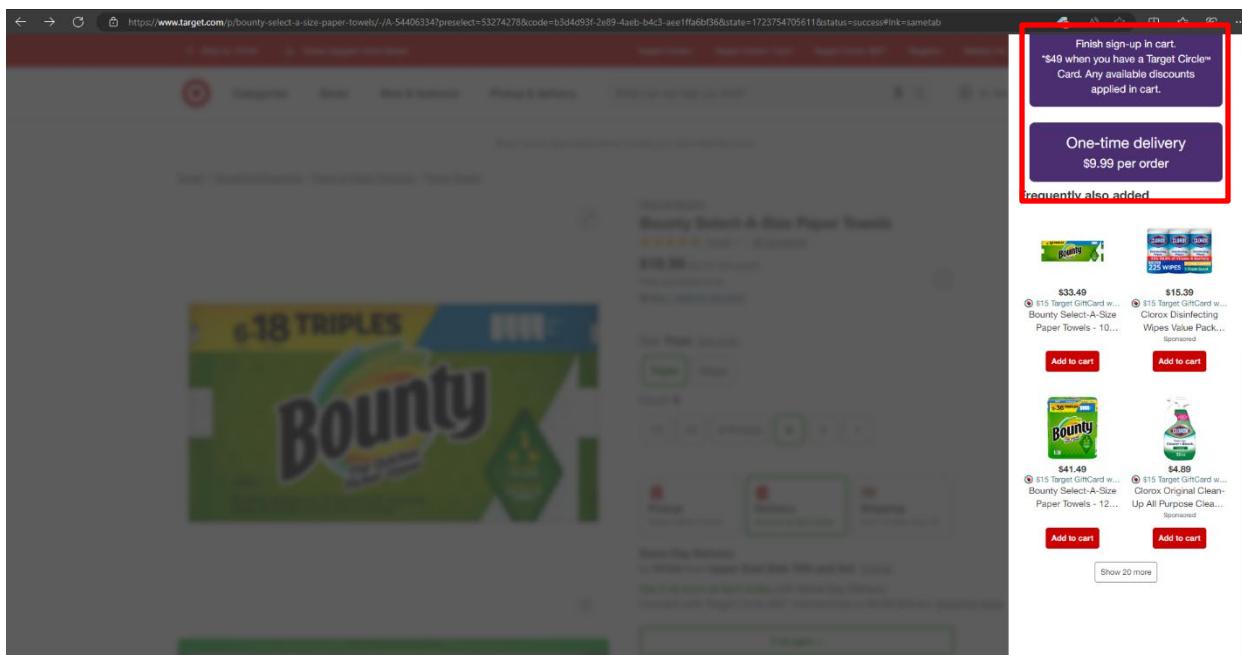


Source: Appendix E, Netflix, Direct Enrollment.

Note: Red box added for emphasis.

Exhibit D.6 Target Circle 360 Offer



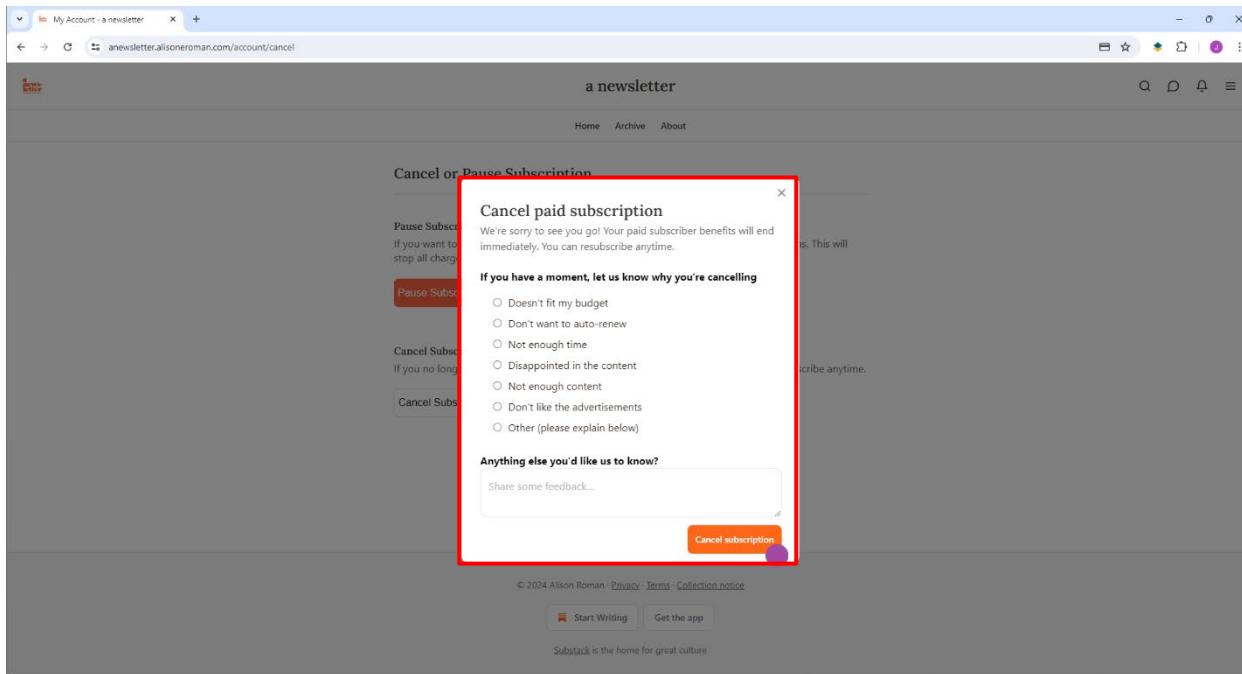


Source: Appendix E, Target Circle 360, Accept 1st Offer.

Note: Red boxes added for emphasis.

b. 4 of the 48 paid digital membership/subscription programs in my analysis did not contain a “decline” call-to-action feature to remain enrolled in the digital membership/subscription program to compare against the call-to-action feature to cancel the membership. Therefore, these programs were not applicable to be reviewed for whether call-to-action features to accept and decline the offer differed in color. These paid digital membership/subscription programs are denoted by the “No decline option” in Exhibit 74 in Section IX of the Hoffman Report. For example, Substack (a Category 2 program), one of the top five paid digital membership/subscription News programs, uses an overlay to ask consumers to participate in an exit survey before the subscription can be cancelled, as shown in Exhibit D.7. The overlay contains an orange button with white text that says “Cancel Subscription,” without any call-to-action feature to remain enrolled in the program. To remain enrolled, the consumer could bypass the overlay by clicking the gray “X” located at the top right corner of the overlay.

Exhibit D.7 Substack Cancellation Exit Survey



Source: Appendix E, Substack, Cancellation.

Note: Red box added for emphasis.

26. Second, three companies, i.e., Costco, SimpliSafe, and Xfinity, did not allow online cancellations of their paid digital membership/subscription programs even though they allowed consumers to subscribe to their programs online. Therefore, these companies were not applicable to be reviewed for any but one of the at-issue UI design elements for desktop cancellation process: “website’s landing page does not include a call-to-action feature to start the cancellation flow.” These three companies are included in the review of desktop cancellation flows, as shown in Exhibit 74 in Section IX of the Hoffman Report and are denoted by “No online cancellation” for all but one of the at-issue UI design elements for desktop cancellation flows.

B. Government Website Analysis

1. Selection of Government Websites

27. I identified the most visited government websites using analytics.usa.gov, an official website of the U.S. government, which records monthly visit data across all government websites. I downloaded monthly visit data across all government websites for January through

December of 2023, which was the last full calendar year with available data at the time of the analysis. There are a total of 4,983 unique URLs in the data.

28. Among the 4,983 URLs, there were instances of multiple URLs for the same general government agency. For example, www.usps.com and tools.usps.com were listed as distinct URLs in the data even though both led to the website for the U.S. Postal Service. The top 100 individual URLs represent 67 unique government agencies.³²

29. Next, I added the monthly visit numbers for each government agency to calculate the total number of visits in 2023 for each government website. I analyzed the 30 most visited government websites, which represent nearly three-fourths (74.4%) of visits to all government website URLs in 2023.³³ These 30 websites are as follows:

1. U.S. Postal Service, usps.com
2. National Center for Biotechnology Information, ncbi.nlm.nih.gov
3. National Weather Service, weather.gov
4. Internal Revenue Service, irs.gov
5. Centers for Disease Control, cdc.gov
6. Medline Plus, medlineplus.gov
7. Bureau of Consular Affairs, travel.state.gov
8. U.S. Citizenship and Immigration Services, uscis.gov
9. Department of Veterans Affairs, va.gov
10. Social Security Administration, ssa.gov
11. USA Jobs, usajobs.gov
12. U.S. Customs and Border Protection, cbp.gov
13. National Park Service, nps.gov
14. Federal Student Aid, studentaid.gov
15. National Hurricane Center, nhc.noaa.gov
16. Food and Drug Administration, fda.gov
17. National Aeronautics and Space Administration, nasa.gov
18. U.S. Geological Survey, usgs.gov
19. Transportation Security Administration, tsa.gov
20. USA.Gov, usa.gov
21. U.S. Department of Justice, justice.gov
22. Securities and Exchange Commission, sec.gov
23. Medicare.gov, medicare.gov
24. National Cancer Institute, cancer.gov

³² Manual review and grouping of the URLs in the government website visit data was only conducted for the top 100 URLs by annual visits in 2023. The top 100 URLs in the data represent 83.8% of all visits to government agency websites in 2023. See Workpaper 4 for a complete mapping of individual URLs to their respective government agencies.

³³ See Workpaper 4.

25. The White House, whitehouse.gov
26. Healthcare.gov, healthcare.gov
27. National Heart, Lung, and Blood Institute, nhlbi.nih.gov
28. U.S. Patent and Trademark Office, uspto.gov
29. Bureau of Labor Statistics, bls.gov
30. Environmental Protection Agency, epa.gov

30. In addition to these top 30 most visited government websites, I also reviewed the FTC's website (the Plaintiff in this matter), which is ranked 64th among the most visited government websites, bringing my total number of government websites reviewed to 31.³⁴

2. Mapping of the FTC's Allegations to Reviewed UI Features Reviewed

31. Government agencies are non-profit organizations that offer users information about government services or benefits, without the need to employ marketing efforts to upsell or cross-sell products or services. As such, none of the government websites I reviewed offered paid digital membership/subscription programs.³⁵ Accordingly, most of the at-issue allegations and UI design elements related to enrollment and cancellation processes in the FTC's complaint (that are listed in Exhibit D.2 and Exhibit D.3 above) were deemed not applicable to government websites that do not offer paid digital membership/subscription programs. There were, however, overlays³⁶ on government websites which prompt consumers to take action to accept or decline a survey, provide feedback, sign up for email notifications, and so on. These features included the existence of options for different actions, similar to the accept and decline options FTC discusses in its complaint. As a result, the two at-issue design elements that were applicable to these government websites and that I included in my analysis for government websites are: (1) whether the government website uses an overlay, and (2) whether the call-to-action feature to decline the

³⁴ Workpaper 4.

³⁵ USPS stamp subscription is the only "subscription" service offered by government websites I reviewed. The USPS offers single stamp purchase or stamp subscription, which delivers stamps every month or twice a month for 6 months or one year and terminates automatically at the end of the term (6-month or 1-year term). This subscription program offered by the USPS is similar to an auto-delivery service, different than the paid digital membership/subscription programs I analyze in the Hoffman Report. This service is different from other paid digital membership/subscription programs as each recurring payment is related to buying products instead of benefits related to the product or services. *See "The Postal Store," USPS*, <https://store.usps.com/store/product/stamps-subscription-first-class-book-SUBS>.

³⁶ As discussed in Section VIII of the Hoffman Report, I use the term "overlays" in reference to UI design elements that appear over the content of the page (i.e., UI elements that the FTC might consider as interruptions of consumers' interactions with the website), including interstitials, pop-ups and modals.

action proposed on the overlay differs in color and/or size from the call-to-action feature to accept the action proposed on the overlay.

3. Screenshot Collection

32. To review these 31 government websites for the existence of the two at-issue UI design elements (i.e., (1) the government website uses an overlay, and (2) call-to-action feature to decline the action proposed on the overlay differs in color and/or size from the call-to-action feature to accept the action proposed on the overlay), step 1 of my analysis involved collecting screenshots of overlays used by these government websites. To collect such screenshots, these government websites were browsed until an overlay appeared for any purpose, including asking consumers to take a survey, provide feedback, sign up for email notifications, etc. Once an overlay appeared, a screenshot was taken, and the website browsing was terminated. Otherwise, the website browsing was terminated after 10 minutes if no overlay was encountered.³⁷

4. Screenshots for At-Issue Features

33. Each government website screenshot was reviewed by two independent coders. Each coder was asked to follow the coding instructions shown in **Appendix D.2** for the following two metrics: (1) the government website uses an overlay, and (2) call-to-action feature to decline the action proposed on the overlay differs in color and/or size from the call-to-action feature to accept the action proposed on the overlay. The raw agreement rate for this analysis is 93.5% and the Cohen's kappa is 90.5%.³⁸ When the two coders differed in their assessment of the existence of design elements at-issue in the government websites, a third independent coder reviewed the screenshot in question and finalized the coding, resolving disagreements by discussion with the coding team.

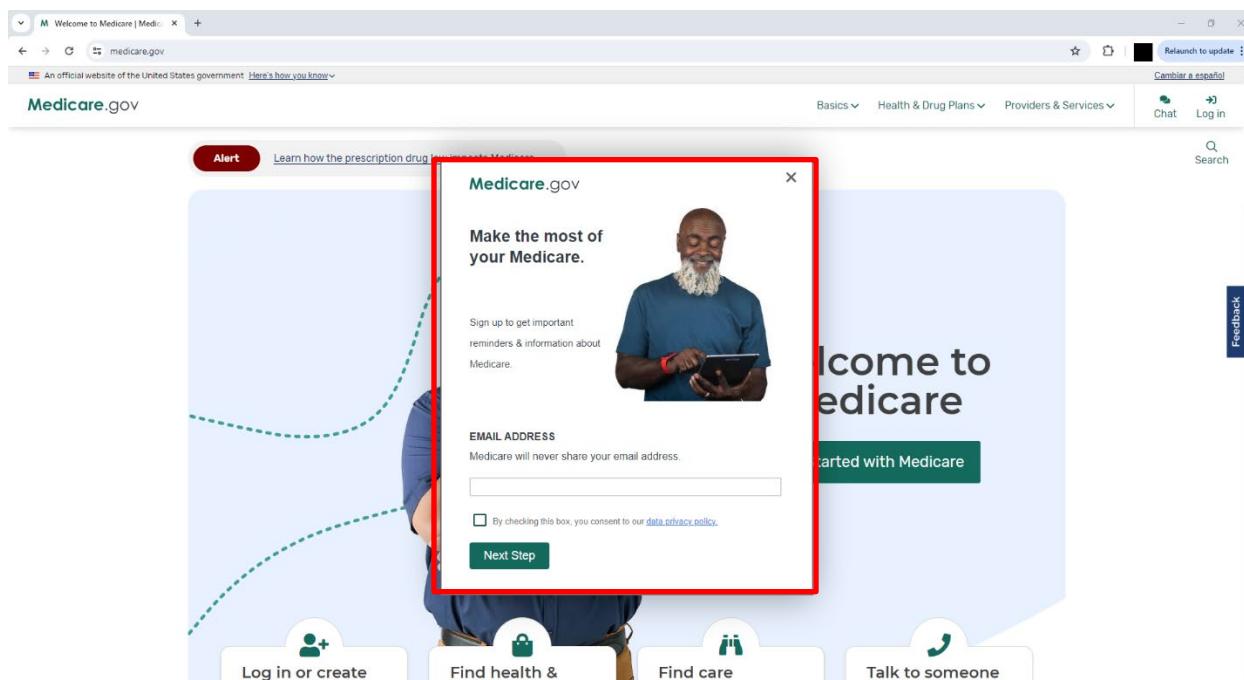
34. The results of my analysis of government websites are summarized in Exhibit 88 in Section IX of the Hoffman Report. I note that 19 of the 31 government websites were not eligible to be reviewed for the “call-to-action feature to decline the action proposed on the overlay differs

³⁷ A reviewer checked the screenshots after they were taken to perform quality control.

³⁸ Workpaper 5.

in color and/or size from the call-to-action feature to accept the action proposed on the overlay” metric. Specifically, 5 of the government websites did not contain a decline option in their overlays, and 14 did not contain any overlays that would have allowed me to evaluate any potential differences in color and/or size between the accept and decline call-to-actions. For instance, Medicare.gov presented the user with an overlay asking them to enter their email address to sign up for reminders and information about Medicare. The overlay contained a green rectangular button with white text that said “Next Step” to allow the user to continue after entering in their email address but offered no alternative call-to-action feature to decline the request. The user could bypass the overlay by clicking the gray “X” button located at the top right corner of the overlay, as shown in Exhibit D.8.

Exhibit D.8 Overlay on Medicare.gov



Source: Appendix F, Medicare.gov.

Note: Red box added for emphasis.

Company Analysis Coding Instructions

Overview of the Coding Exercise

1. You will be reviewing screenshot bundles showing enrollment to and cancellation of various paid digital membership/subscription programs (or free trials of such programs), featuring both the steps involved to sign up for the program (i.e., “enrollment screenshot bundle”) and the steps involved to cancel the program (i.e., “cancellation screenshot bundle”).
2. You will be reviewing each enrollment and cancellation screenshot bundle for the existence of various user interface design elements (“UI design elements”). There are 9 UI design elements to be reviewed for the enrollment screenshot bundles and 7 UI design elements to be reviewed for the cancellation screenshot bundles.
3. You will code each screenshot bundle as a 0 or 1, depending on whether it contains the relevant UI design element. Some UI design elements will require you to also use not available (“N/A”). Instructions on when to record a 0, 1, or N/A for each of the UI design elements are provided below.

Coding Guidelines

1. For each paid digital membership/subscription screenshot bundle, set aside enough time to review the whole screenshot bundle and code all relevant UI design elements.
2. Go through the entire screenshot bundle from start to finish first to understand all the steps before beginning to record your coding.
3. Review the coding instructions before you start reviewing and coding, and reference them as needed during the coding exercise.
4. Review and code enrollment/cancellation screenshot bundles in the order in which they are listed in the coding spreadsheet.
5. Save your data (the coding spreadsheet) frequently.

Enrollment

1. The company offers a free trial that automatically renews and charges payment method if not cancelled before the end of the trial period.

GOAL: Some paid digital membership/subscription programs offer a free trial of the program where the consumer gets access to some or all the program’s benefits at no charge for a limited period. Participating in this free trial may require providing payment information (e.g., credit card details) and authorizing the company to charge the payment method on file for the recurring cost of the membership/subscription program at the end of the free trial period, if not cancelled before then. Assess whether such a free trial that automatically renews (i.e., a free trial that automatically converts into a paid

subscription at the end of the free trial period if not cancelled before the end of the free trial period) and charges payment method for recurring fees at the end of the trial period is shown to the consumer. Code as follows:

- a. 1 – The enrollment screenshot bundle contains an offer for a free trial of the paid digital membership/subscription program that automatically renews and charges payment method at the end of the trial period (if not canceled before then).
- b. 0 – The enrollment screenshot bundle does not contain an offer for a free trial of the paid digital membership/subscription program that automatically renews and charges payment method at the end of the trial period (if not canceled before then).

2. An overlay is used to make an offer for the paid digital membership/subscription program.

GOAL: In the context of this coding exercise, an “overlay” is a UI design element that can appear over the content of a given webpage (e.g., a layer that appears on top of a webpage that prevents interacting with the underlying webpage unless a certain action is taken, such as a pop-up box that contains call-to-actions that may need to be clicked before the consumer can progress navigating the website) or as a full standalone webpage. The overlay must present an “offer” to the consumer to enroll in or learn more about the paid digital membership/subscription program and/or a free trial of the program. The overlay must also require the consumer to take an action regarding the offer before they can progress in the flow (i.e., the user is required to click call-to-action features embedded in the overlay such as accepting, declining, or learning more about the offer, or to click an “X” to exit the overlay and continue). Assess whether each enrollment screenshot bundle contains an overlay with an offer to enroll in or learn more about the paid digital membership/subscription program and/or a free trial of the program. In the context of this coding exercise, the overlay is considered to present an offer to the consumer only if it includes information about the paid digital membership/subscription program such as its “benefits” and/or price. “Benefits” are features of the paid digital membership/subscription program that become available to the consumer after they enroll in the program or a free trial of the program. The free trial offer by itself should not be considered a benefit of the paid digital membership/subscription program. Code as follows:

- a. 1 – The enrollment screenshot bundle contains an overlay that presents an offer for the paid digital membership/subscription program and/or a free trial of the program.
- b. 0 – The enrollment screenshot bundle does not contain an overlay that presents an offer for the paid digital membership/subscription program and/or a free trial of the program.

3. The benefits of the paid digital membership/subscription program are repeated multiple times on a given webpage.

GOAL: A company may communicate the paid digital membership/subscription program's "benefits" to the consumer more than once on a given webpage within the screenshot bundle. "Benefits" are features of the paid digital membership/subscription program that become available to the consumer after they enroll in the program or a free trial of the program (the free trial offer should not be considered a benefit of the paid digital membership/subscription program). Assess whether each enrollment screenshot bundle contains a webpage where benefits of the paid digital membership/subscription program are repeated multiple times. This includes instances in which a single benefit (e.g., "faster shipping," "savings," "exclusive content") is repeated multiple times on the same webpage, and instances where multiple benefits are visually presented on the same webpage as a list identified by repeated visual elements (e.g., a list of checkmarks or other repeated icons listed next to each benefit). Code as follows:

- a. 1 – The enrollment screenshot bundle contains a webpage with multiple repetitions of the benefits of the paid digital membership/subscription program.
- b. 0 – The enrollment screenshot bundle does not contain any webpages with multiple repetitions of the benefits of the paid digital membership/subscription program.

4. The benefits of the paid digital membership/subscription program are repeated across multiple webpages.

GOAL: A company may repeatedly communicate the paid digital membership/subscription program's benefits to the consumer across multiple webpages within the enrollment screenshot bundle. "Benefits" are features of the paid digital membership/subscription program that become available to the consumer after they enroll in the program or a free trial of the program (the free trial offer should not be considered a benefit of the paid digital membership/subscription program). For each enrollment screenshot bundle, assess whether the paid digital membership/subscription program benefits are repeated across multiple webpages within the screenshot bundle. Code as follows:

- a. 1 – The enrollment screenshot bundle contains two or more webpages that communicate the benefits of the paid digital membership/subscription program.
- b. 0 – The enrollment screenshot bundle contains zero or one webpage that communicates the benefits of the paid digital membership/subscription program.

5. Call-to-action feature to decline the offer for the paid digital membership/subscription program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage.

GOAL: The offer to enroll in the paid digital membership/subscription program and/or a free trial of the program may be accompanied by call-to-action features to accept and/or decline the offer. The call-to-action features to accept/decline the offer are prompts that offer the consumer choices of action (e.g., prompts such as “enroll now,” “subscribe,” “start free trial,” or similar for accepting; and “no, thanks,” “not now,” or similar for declining) and can take the form of buttons, hyperlinks, checkboxes, etc. The call-to-action features for declining or accepting the offer may be different in color and/or size. Assess whether the enrollment screenshot bundle contains a webpage, on which an offer for the paid digital membership/subscription program (or a free trial of the program) is made, where a call-to-action feature for declining the offer differs in color and/or size from the call-to-action feature for accepting the offer on the same webpage. Do not consider an “X” in the corner of an overlay as a call-to-action feature to decline the offer. Code as follows:

- a. 1 – The enrollment screenshot bundle contains a webpage where the call-to-action feature to decline the offer for the paid digital membership/subscription program or a free trial of the program differs in color and/or size from the call-to-action feature to accept the offer on the same webpage.
 - b. 0 – The enrollment screenshot bundle does not contain any webpages where call-to-action features to decline the offer for the paid digital membership/subscription program or a free trial of the program differs in color or size from the call-to-action features to accept the offer on the same webpage.
 - c. N/A –The enrollment screenshot bundle does not contain any webpages that contain both the call-to-action feature to decline the offer for the paid digital membership/subscription program or a free trial of the program and the call-to-action feature to accept the offer.
6. Information about auto-renewal is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program.

GOAL: A company may use certain language on its website to communicate to the consumer that the paid digital membership/subscription program will auto-renew and/or that the free trial of the program would automatically convert into a paid subscription at the end of the trial period if not cancelled before the end of the free trial period. This includes language that directly states the auto-renewal policy, e.g. “This subscription will auto-renew and charge the payment method on file after 30 days,” or “By signing up, you agree to authorize a charge of \$[X]/month to be billed automatically to the payment method on file after your free trial ends.” This also includes language that specifies the

*price of the paid digital membership/subscription program as a price at recurring intervals such as price “per month” or price “per year.” Assess whether information about auto-renewal is communicated to the consumer in the enrollment screenshot bundle **before** the consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program. The consumer completes enrollment when they click on the final call-to-action for enrollment (e.g., “subscribe,” “place your order,” “buy membership,” “start free trial”) that results in the consumer becoming enrolled in the paid digital membership/subscription program or a free trial of the program. Code as follows:*

- a. 1 – The enrollment screenshot bundle discloses information about auto-renewal before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program.
- b. 0 – The enrollment screenshot bundle does not disclose information about auto-renewal before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program.

7. Information about the price of the paid digital membership/subscription program is disclosed before a consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program.

*GOAL: A company may use certain language on its website to communicate to the consumer the price of the paid digital membership/subscription program (e.g., “\$7.99” or “\$7.99 per month”). Assess whether the price of the paid digital membership/subscription program is communicated to the consumer **before** the consumer completes enrollment in the paid digital membership/subscription program or a free trial of the program. The consumer completes enrollment when they click on the final call-to-action for enrollment (e.g., “subscribe,” “place your order,” “buy membership,” “start free trial”) that results in the consumer becoming enrolled in the paid digital membership/subscription program or a free trial of the program. Code as follows:*

- a. 1 – The enrollment screenshot bundle discloses the price of the paid digital membership/subscription program before a consumer completes enrollment in the program or a free trial of the program.
- b. 0 – The enrollment screenshot bundle does not disclose the price of the paid digital membership/subscription program before a consumer completes enrollment in the program or a free trial of the program.

8. Information about the benefits of the paid digital membership/subscription program is presented using larger or differently colored text or other visual elements compared to other text on the same webpage.

GOAL: “Benefits” are features of the paid digital membership/subscription program that become available to the consumer after they enroll in the program or a free trial of the program (the free trial offer should not be considered a benefit of the paid digital membership/subscription program). A company may present information about the benefits of the paid digital membership/subscription program using font that is larger or different in color compared to other text on the same webpage. A company may also present information about the benefits of the paid digital membership/subscription program using a list identified by repeated visual elements (e.g., colored checkmarks or other repeated icons next to the listed benefits). Assess whether the enrollment screenshot bundle contains a webpage on which information about the benefits (or some of the benefits) of the paid digital membership/subscription program are presented using font or other visual elements (e.g., checkmarks) that are larger or different in color compared to the rest of the text on that webpage. Code as follows:

- a. 1 – The enrollment screenshot bundle contains a webpage on which information about the benefits (or some of the benefits) of the paid digital membership/subscription program are presented using larger or differently colored text or visual elements compared to other text on the same webpage.
 - b. 0 – The enrollment screenshot bundle does not contain any webpages on which information about the benefits (or some of the benefits) of the paid digital membership/subscription program are presented using larger or differently colored text or visual elements compared to other text on the same webpage.
 - c. N/A – No program benefits are presented on any of the webpages in the enrollment screenshot bundle.
9. Call-to-action feature to complete enrollment in the paid digital membership/subscription program or a free trial of the program is the same color scheme as other call-to-action features encountered by a consumer prior to completing enrollment.

GOAL: A call-to-action feature on a webpage allows consumers to perform a specific action like logging into their account, moving to the next webpage, or downloading a song (e.g., buttons, hyperlinks or other clickable features for prompts such as “Log in,” “Add to Cart,” “Buy Now,” “Continue,” “Next Webpage,” “Watch Now,” “Create an Account”). Compare the color of the call-to-action features the consumer encounters prior to completing enrollment in the paid digital membership/subscription program or a free trial of the program to the color of the call-to-action feature the consumer has to click to complete enrollment. Assess whether the color used for two or more call-to-action features encountered prior to completing enrollment matches the color of the call-

to-action feature consumers click to complete enrollment. The consumer completes enrollment when they click on the final call-to-action for enrollment (e.g., “subscribe,” “place your order,” “buy membership,” “start free trial”) that results in the consumer becoming enrolled in the paid digital membership/subscription program or a free trial of the program. Code as follows:

- a. 1 – The enrollment screenshot bundle contains two or more call-to-action features prior to enrollment completion that have the same color as the call-to-action feature consumers click to complete enrollment in the paid digital membership/subscription program or a free trial of the program.
- b. 0 – The enrollment screenshot bundle contains at most one call-to-action feature prior to enrollment completion that has the same color as the call-to-action feature consumers click to complete enrollment in the paid digital membership/subscription program or a free trial of the program.

Cancellation

1. The “manage my account” webpage includes a feature that a consumer can click to advance to the cancellation flow.

GOAL: In the context of this coding exercise, “manage my account” webpage refers to the central account management webpage on a company’s website where consumers can manage their account settings. Assess whether a consumer can advance to the cancellation flow for the paid digital membership/subscription program (or for a free trial of the program) by clicking on a feature (e.g., a button, a hyperlink, or a tab in a drop-down menu) on the “manage my account” webpage. This includes a feature to start the cancellation flow immediately (e.g., “Unsubscribe,” “Cancel membership”) or a feature that advances the consumer to additional webpages (e.g., “Manage Subscription,” “Payment Settings,” “Change My Plan”) through which the consumer can start (or further advance to) the cancellation flow. The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says “Unsubscribe,” “Cancel membership,” or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). Code as follows:

- a. 1 – The “manage my account” webpage includes a feature that a consumer can click to advance to the cancellation flow.
- b. 0 – The “manage my account” webpage does not include a feature that a consumer can click to advance to the cancellation flow.

2. The website's landing page does not include a feature the consumer can click to start the cancellation flow.

*GOAL: The cancellation flow for the paid digital membership/subscription program (or a free trial of the program) begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says "Unsubscribe," "Cancel membership," or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). Assess whether a consumer can **start** the cancellation flow of the paid digital membership/subscription program (or of a free trial of the program) by clicking on a feature on the website's landing page (i.e., the website's home page). Code as follows:*

- a. 1 – The landing page does not include a feature that a consumer can click to start the cancellation flow.
- b. 0 – The landing page includes a feature that a consumer can click to start the cancellation flow.

3. The cancellation flow involves navigating multiple webpages.

GOAL: The cancellation flow may require navigating one or multiple webpages. The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says "Unsubscribe," "Cancel membership," or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). The cancellation flow ends on the webpage where the consumer clicks on the call-to-action feature that results in the consumer no longer being enrolled in the paid digital membership/subscription program (or a free trial of the program). Assess whether the cancellation flow involves navigating more than one webpage. Code as follows:

- a. 1 – The cancellation flow involves navigating more than one webpage.
- b. 0 – The cancellation flow does not involve navigating more than one webpage.

4. Call-to-action features for alternatives to immediately cancelling the paid digital membership/subscription program (or a free trial of the program) are present in the cancellation flow.

GOAL: A website may present the consumer with alternatives to cancelling their paid digital membership/subscription program (or a free trial of the program), such as call-to-actions for: reviewing the benefits of the paid digital membership/subscription program, receiving a temporary discount to the price of the digital membership/subscription program, switching to a different digital/subscription program, pausing the digital membership/subscription program, receiving reminders to cancel the digital

*membership/subscription program at a later time, or canceling the digital membership/subscription program on a specific date in the future. Features and prompts such as “Keep My Membership,” “Keep My Account,” “Keep My Benefits,” “Back To Subscription,” “Do Not Cancel,” or other similar prompts to remain a member of the digital membership/subscription program should not be considered as calls-to-action for alternatives to immediately canceling. Assess whether any call-to-action features for alternatives to immediately canceling are present on any of the webpages within the cancellation flow that the consumer encounters **after** the webpage on which they start the cancellation flow. The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says “Unsubscribe,” “Cancel membership,” or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). The cancellation flow ends on the webpage where the consumer clicks on the call-to-action feature that results in the consumer no longer being enrolled in the paid digital membership/subscription program (or a free trial of the program). Code as follows:*

- a. 1 – Call-to-action features for alternatives to immediately cancelling the paid digital membership/subscription program (or a free trial of the program) are present on any of the webpages within the cancellation flow that the consumer encounters **after** the webpage on which they start the cancellation flow.
- b. 0 – Call-to-action features for alternatives to immediately cancelling the paid digital membership/subscription program (or a free trial of the program) are not present on any of the webpages within the cancellation flow that the consumer encounters **after** the webpage on which they start the cancellation flow.

5. The cancellation flow mentions the benefits of the paid digital membership/subscription program.

GOAL: “Benefits” are features of the paid digital membership/subscription program that become available to the consumer after they enroll in the program or a free trial of the program (the free trial offer should not be considered a benefit of the paid digital membership/subscription program). A company may communicate the benefits of the paid digital membership/subscription program to the consumer during the cancellation flow. Assess whether the benefits of the paid digital membership/subscription program are mentioned during the cancellation flow. The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says “Unsubscribe,” “Cancel membership,” or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). The cancellation flow ends on the webpage where the consumer clicks on the call-to-action feature that results in the consumer no longer being enrolled in the paid

digital membership/subscription program (or a free trial of the program). Code as follows:

- a. 1 – The cancellation flow mentions benefits of the paid digital membership/subscription program.
- b. 0 – The cancellation flow does not mention benefits of the paid digital membership/subscription program.

6. The cancellation flow includes warning icons.

GOAL: A warning icon is any symbol/icon/picture that could be considered as a warning or alert, e.g., an exclamation mark inside a triangle, or colored “X”s nearby text. Assess whether the webpages within the cancellation flow contain any such warning icons. The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says “Unsubscribe,” “Cancel membership,” or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). The cancellation flow ends on the webpage where the consumer clicks on the call-to-action feature that results in the consumer no longer being enrolled in the paid digital membership/subscription program (or a free trial of the program). Code as follows:

- a. 1 – The cancellation flow includes a webpage that contains at least one warning icon.
- b. 0 – The cancellation flow does not include any webpages that contain at least one warning icon.

7. Call-to-action feature to cancel the paid digital membership/subscription program (or a free trial of the program) and the call-to-action feature to remain enrolled in the program that are presented on the same page of the cancellation flow differ in color.

GOAL: The cancellation flow begins on the webpage where the consumer is shown the first call-to-action feature to end their enrollment in the program (or a free trial of the program), such as a button or a link that says “Unsubscribe,” “Cancel membership,” or similar, that puts the consumer on a path that allows them to end their membership/subscription program (or a free trial of the program). The cancellation flow ends on the webpage where the consumer clicks on the call-to-action feature that results in the consumer no longer being enrolled in the paid digital membership/subscription program (or a free trial of the program). The call-to-action feature for cancelling within the cancellation flow may be accompanied on the same webpage by call-to-action feature(s) to remain enrolled in the current program (or free trial of the program). Identify the call-to-action features for cancelling the paid digital membership/subscription program (or a free trial of the program). These call-to-action

features can include prompts such as “Cancel,” “Continue to Cancel,” “Unsubscribe.” Then, assess whether any call-to-action features that allow the consumer to remain enrolled in their current program (or free trial of the program) are presented on the same webpage. These call-to-action features can include prompts such as “Do not cancel,” “Never mind,” “Keep subscription,” or “Take me back to Manage My Account.” Assess whether the call-to-action feature to cancel and the call-to-action feature(s) to remain enrolled in the current program (or free trial of the program) that are presented on the same webpage within the cancellation flow differ in color. Note that an “X” in the corner of a webpage does not count as a call-to-action feature to remain enrolled in the current program (or free trial of the program). Also note that any alternative call-to-action features such as those for reviewing benefits, receiving a temporary discount, or switching to a different plan do not count as a call-to-action feature to remain enrolled in the current program (or in the free trial of the program). Code as follows:

- a. 1 – The cancellation flow contains a webpage where the call-to-action feature to cancel the paid digital membership/subscription program (or free trial of the program) differs in color from the call-to-action feature to remain enrolled in the current program (or free trial of the program) presented on the same webpage of the cancellation flow.
- b. 0 – The cancellation flow does not contain any webpages where call-to-action features to cancel the paid digital membership/subscription program (or free trial of the program) differ in color from the call-to-action feature to remain enrolled in the current program (or free trial of the program) presented on the same webpage of the cancellation flow.
- c. N/A – The call-to-action feature to cancel and the call-to-action feature to remain enrolled in the paid digital membership/subscription program (or free trial of the program) are not presented on the same webpage of the cancellation flow.

Government Analysis Coding Instructions

Overview of the Coding Exercise

1. You will be reviewing screenshots of various government websites for the existence of two user interface design elements (“UI design elements”).
2. You will code each UI design element as a 0, 1 or N/A (when applicable) for each government website. Instructions on when to record a 0, 1, or N/A for each of the UI design elements are provided below.

Coding Guidelines

1. Review the coding instructions before you start reviewing and coding, and reference them as needed during the coding exercise.
2. Review and code government websites in the order in which they are listed in the coding spreadsheet.
3. Save your data (the coding spreadsheet) frequently.

Government Review

1. The government website uses an overlay.

GOAL: In the context of this coding exercise, an “overlay” is a UI design element that appears over the content of a given webpage (e.g., a layer that appears on top of a webpage that prevents interacting with the underlying webpage unless a certain action is taken, such as a pop-up box that contains call-to-actions that may need to be clicked before the consumer can progress navigating the website). The overlay must require the consumer to take an action before they can progress to browse the website (i.e., the user is required to click call-to-action features embedded in the overlay such as accepting to do a survey, providing feedback for the website, or clicking on an “X” in the corner of an overlay to exit the overlay and continue). Assess whether each website contains an overlay. Code as follows:

- a. 1 – The website uses an overlay.
 - b. 0 – The website does not use an overlay.
2. Call-to-action feature to decline the action proposed on the overlay differs in color and/or size from the call-to-action feature to accept the action proposed on the overlay.

GOAL: The government website might use an overlay to propose an action (e.g., taking a survey, providing feedback, joining a mailing list, or confirming that the user wants to leave the website). The call-to-action features to accept/decline the action are prompts that offer the user choices of action (e.g., prompts such as “continue,” “go,” or similar for accepting and “no thanks,” “cancel” or similar for declining) and can take the form of buttons or hyperlinks. The call-to-action features for declining or accepting the action

proposed on the overlay may be different in color and/or size. Do not consider an “X” in the corner of an overlay as a call-to-action feature for declining. Code as follows:

- a. 1 – The call-to-action feature to decline the proposed action on the overlay differs in color and/or size from the call-to-action feature to accept the proposed action on the same overlay.
- b. 0 – The call-to-action feature to decline the proposed action on the overlay has the same color and size as the call-to-action feature to accept the proposed action on the same overlay.
- c. N/A –The website does not use an overlay, or the overlay does not contain any call-to-action features to decline the proposed action on the overlay.

Appendix E

attached separately

Appendix F

attached separately